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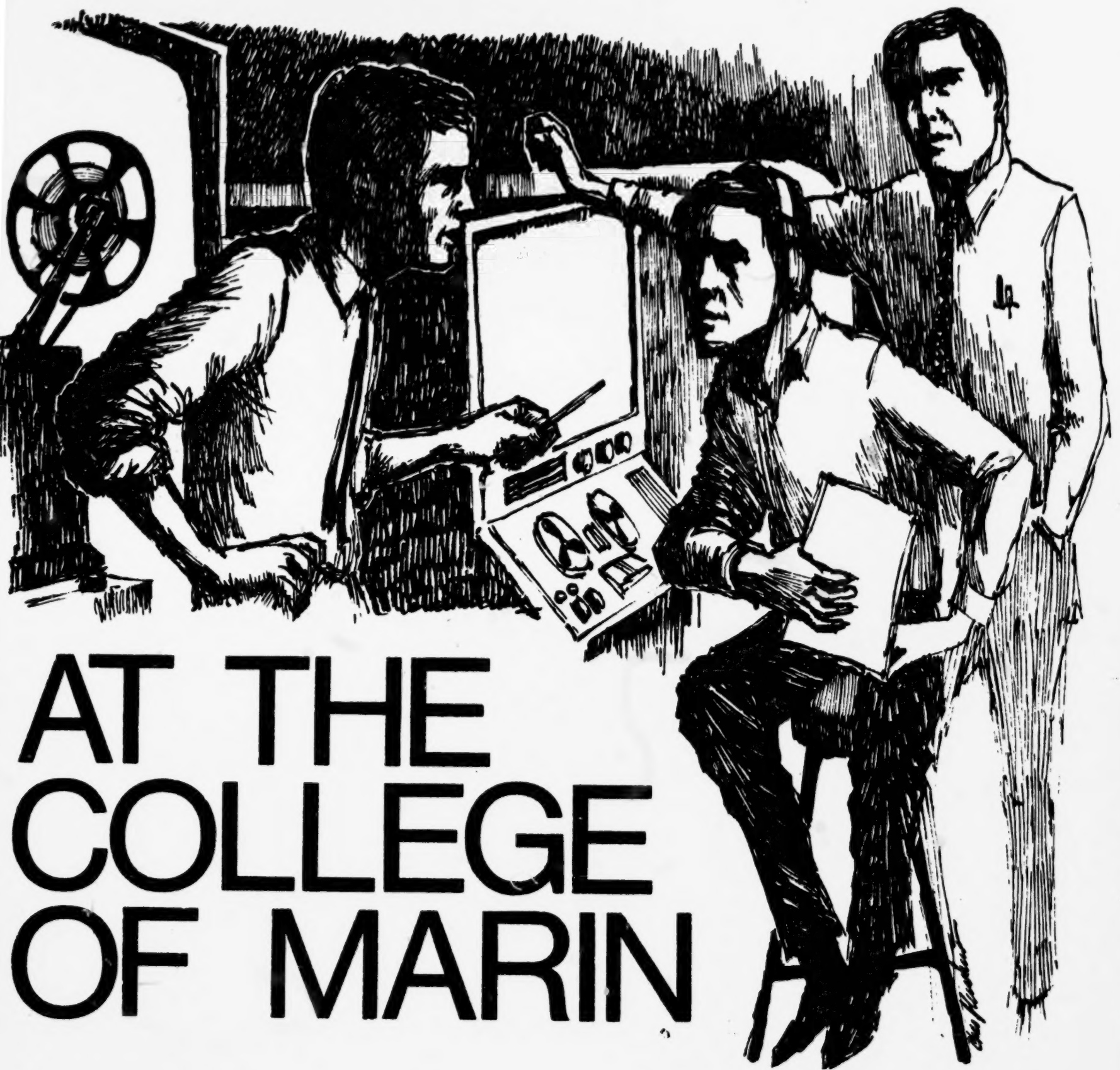
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In 1965, the faculty and administration of the College of Marin formed a committee on instructional research and development to encourage active experimentation in this vital educational area. This document includes: (1) the initial precepts and organization of the committee; (2) a style for the budget and finance of research and development activities; (3) a framework for the submission of research proposals; (4) a format for expansion in instructional research and development activities; and (5) rationale and procedures for the development of a learning center as a system of ideas and as a framework of operating facilities to advance instructional research and development activities. Also included are the faculty projects submitted to the committee between Fall 1966 and Summer 1969. (MC)

INSTRUCTIONAL RESEARCH & DEVELOPMENT



AT THE COLLEGE OF MARIN

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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INSTRUCTIONAL RESEARCH AND DEVELOPMENT

at the

COLLEGE OF MARIN

UNIVERSITY OF CALIF.
LOS ANGELES

FEB 24 1968

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Dikran J. Martin
November, 1968

INSTRUCTIONAL RESEARCH AND DEVELOPMENT AT THE COLLEGE OF MARIN

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INSTRUCTIONAL RESEARCH AND DEVELOPMENT AT THE COLLEGE OF MARIN

Dikran J. Martin

Introduction: First Precepts and Initial Organization

In the spring semester, 1965, the faculty at the College of Marin commenced to develop an organizational pattern designed to encourage active experimentation in instructional research and development. The President of the Faculty Association - College of Marin (FACOM) requested a small group of interested faculty members to consult with the College administration and develop some suggested guidelines which would be pertinent in formulating a definitive description of the role and function of a new Committee on Instructional Research and Development. The following recommendations were developed which helped delineate the scope and purpose of this new committee:

1. The Committee recommends that it be the standing action group designated to consider proposals relating to instructional research and development activities and then assist and support the College faculty in the initiation of these activities which they request for incorporation in their educational practice.
2. The Committee recommends that it be the principal agency of the College professional staff for the development and evaluation of policy formulation which relate to instructional research and development.
3. The Committee recommends that it be the principal agency of the College professional staff for funding all projects and proposals which relate to instructional research and development.
4. The Committee recommends that it be the principal informational committee of the College designated with the responsibility to receive or gather and distribute to interested faculty members the latest knowledge regarding significant research and development concepts, practices, and materials which are relevant to instructional research and development in higher education.

The first Committee was comprised of twelve members of the resident College faculty and administration. The eight faculty members were selected by the officers of the faculty association (FACOM) and the administration complement (four members) were selected by the President of the College.

A Style for Budget and Finance

Instructional Research and Development activities do not lend themselves to the usual budget and finance regulations of a college. This committee would be dealing with innovative -- new and different -- concepts and methods involved in the teaching-learning transaction of the classroom and laboratory. The usual budget and finance regulations of a college deal with rather clear cost expectancies for the fiscal year. Instructional

research and development deals with operations designed for the purpose of discovering newer, more promising and productive teaching-learning relationships. A style for budget and finance of instructional research and development must, therefore, take into consideration that this committee needs to be prepared to financially support some rather surprising and unforeseen concepts and methods of professional educators.

It was determined that prior to the development of the annual College budget the committee would make an effort to seek out all instructional research and development proposals being developed and projects being continued by the College faculty. Once these proposals are on file with the Committee the members would assemble them to develop a foundation for an annual cost estimate of prepared and continuing projects. To this estimate the members would then add a specified sum of contingency funds (monies not designed for specific proposals). The total annual committee budget would then be voted upon by the members and forwarded to the College standing Committee on Budget and Finance.

ANNUAL COST ESTIMATE OF PREPARED AND CONTINUING PROJECTS

+

SPECIFIED SUM OF CONTINGENCY FUNDS

= IR & D COMMITTEE
ANNUAL BUDGET

Once the Instructional Research and Development Committee budget is reviewed and approved by first the College Committee on Budget and Finance and then by the Board of Trustees, the funds would remain in the IR & D Committee trust to be disbursed when a proposal is approved at an announced regular meeting of the Committee. All meetings of this committee are unrestricted (open) to the College community. The IR & D Committee schedules no restricted (closed) meetings. It was further determined that any necessary accounting of the Committee funds be centralized in the office of an administrator for instruction designed to perform this service for the Committee.

A Framework for the Submission of Research Proposals

The first IR & D Committee spent a considerable amount of time in active discussion of various suggestions regarding the most useful and productive role and function of a working faculty group seeking to encourage innovations in higher education. A general statement regarding committee purpose was suggested and is as follows:

THE PURPOSE OF THIS COMMITTEE IS TO ENCOURAGE THE PURSUIT OF POLICY FORMULATIONS FOR THE PROMOTION OF INSTRUCTIONAL RESEARCH AND DEVELOPMENT ACTIVITIES AT THE COLLEGE. THE COMMITTEE IS ESPECIALLY INTERESTED IN ASSISTING THE COLLEGE FACULTY IN THE INITIATION OF INSTRUCTIONAL RESEARCH ACTIVITIES WHICH THEY REQUEST FOR INCORPORATION IN THEIR CURRICULUM.

The first IR & D Committee members felt that however the general purpose statement is phrased, it should imply that this working group is interested in encouraging individual faculty members or groups of faculty members

representing any disciplines to advance conceptualization and experimentation in the methods and techniques of instruction.

The Committee determined that it would not require the faculty member to submit a lengthy and elaborately structured format in their research proposals. The best concepts and techniques pertaining to instructional research and development can be presented in an uncomplicated and succinct fashion. The Committee members did establish some proposal request guidelines for the interested faculty member that in some manner provided the following information:

1. A brief statement of the problem.
2. A brief statement of how the problem might be alleviated.
3. A brief statement of the anticipated amount of professional and supportive time that will be devoted to the project.
4. A brief statement explaining what physical arrangements will be involved in the project (e.g., new room and equipment use).
5. A financial statement listing funds specified for equipment and materials.
6. A brief statement indicating the methods used for evaluating and reporting the results of the project.

A year later the 1966 IR & D Committee established additional policies designed to evaluate faculty requests for released time from instruction (proposals for Research and Development Time) and retreats where innovative concepts and techniques are discussed (proposals for Designing the Academic Conference).

The communiqué offered the faculty for the submission of proposals for released time from instruction is as follows:

To: Members of the Faculty

Re: Submission of proposals for Research and Development Time

This committee does not require the faculty member(s) to submit a lengthy and highly structured proposal for "R & D" time. Instead, the Committee asks those faculty members intending to make an "R & D" proposal to respect the following guidelines and to reply to the appropriate questions listed under ". . . support of the proposal."

GUIDELINES

1. Faculty members will please state the prime objectives underlying their request.

2. Please be aware of the following deadlines for submission of projects:

April 1 for "R & D" time during the Fall Semester.
October 15 for "R & D" time during the Spring Semester.

3. It is important that the faculty member(s) initiating the proposal discuss his (their) plans with those other individuals at the college who might be affected by his proposal.

QUESTIONS TO BE SUPPORTED BY YOUR PROPOSAL

1. Why is "R & D" time essential to your proposal?
2. How many hours of "R & D" time are necessary to complete your project for a determined time period (e.g., 120 hours per semester, etc.)? If your request for "R & D" time can be equated in terms of units of class time, please do so.
3. Can you develop your project during academic recess periods (e.g., summer, winter recess, etc.)? If so, please indicate the appropriate period.
4. Will financing for supportive services (e.g., secretarial or technical assistance) need to be included in your request? If so, please explain.
5. Will you need to request some special physical arrangements (e.g., work or storage room) for your project? If so, please explain.
6. Will another instructor be required to meet some of your scheduled classes in your absence? If so, please explain.
7. Will participation in this project by your colleagues enhance the project's development? If so, please explain.
8. Will you please describe and explain the means by which your project will be evaluated?

The communiqué offered the faculty for the submission of proposals for The Academic Conference is as follows:

To: Members of the Faculty

Re: Guidelines for Designing a Proposed Academic Conference

The purpose of an Academic Conference is to provide an atmosphere, detached and insulated from distracting influences, in which problems associated with college programs and practices may be examined and that solutions specific to these problems be proposed for additional study or prescribed enactment.

The Committee on Instructional Research and Development has the function of encouraging and ensuring broad participation in Academic Conferences on the premise that such activities enrich the "community of scholars" method of problem-solving on a college campus.

The Project Guidelines

1. Proposals for Academic Conferences should be submitted by a spokesman for the faculty participants. These participants might be comprised of all the faculty in a single department, or a group of faculty members assembled from many departments.
2. A proposal theme -- the problem(s) to be analyzed -- should be carefully designed and specifically articulated.
3. All faculty participants should be identified in the project report.
4. A time schedule for the project should be prepared.
5. A schedule of costs for the project should be prepared.
6. The principal concepts and accompanying means (techniques) which will guide the evaluation of the project should be identified.

The Project Results and Conclusions

A preliminary report of the project results and conclusions should be made available to the Committee on Instructional Research and Development. The Committee and the participants in the project would decide (jointly) which of their colleagues in the college should receive these results.

The Learning Center: A Format for Expansion of Instructional Research and Development Activities

Since its inception the Committee on Instructional Research and Development has received from the faculty 34 projects with an additional four soon to be prepared for committee presentation. After the first year in operation it was quickly understood that the range and extent of these projects were becoming so immense and involved that the College needed for the immediate future a working plan for the expansion of instructional research and development activities. If these innovative activities in curriculum development were to be increased at the College of Marin greatly expanded facilities and supportive services were needed for the faculty. The usual facilities provided the faculty (i.e., limited office space and minimal classroom-laboratory spaces) and the small contingent of audio-visual supportive staff, working in a restricted environment with insufficient technical equipment and supplies, have placed impossible constraints on nearly all IR & D projects. In addition, faculty members and their students were working with each other, with the college administration, and with members

of the supportive staff in what might be termed enhanced group participative relationships. New facilities and equipment were needed to be sure, but in addition attention needed to be directed to the creation of a modern cooperative social-psychological cooperative system where all participants -- the faculty and their students, the administration, and the relevant supportive staff -- contribute to the fullest extent of their interests and talents to promote the greatest efficiencies and accomplishments in these activities. It was determined that this format for the expansion of instructional research and development at the College needed to be conceived in a plan that articulated an organizational model for the social-psychological relationships involved in instructional research and development as well as a rationale for the design of supportive operating facilities. The result was the following report presented to and accepted on January 31, 1968 by the 1967-68 IR & D Committee. The report is presented in its original form, but since the January 31 date certain changes have been made in portion "C" -- Size Specifications for Operating Facilities and Comments on Adjacency.

COLLEGE OF MARIN

COMMITTEE ON INSTRUCTIONAL RESEARCH AND DEVELOPMENT

A COMMITTEE DOCUMENT

THE LEARNING CENTER

A Format for Expansion in Instructional Research and Development Activities

The material herein represents this committee's conclusion on the rationale for the planning of a campus facility to support the furtherance of instructional research and development activities at the College. As of the date of this document, The Learning Center operating facility is contemplated as a building designed to be adjacent to or contained within a new College Library Complex.

This document should be construed as a first Committee effort to develop an organizational framework for instructional research and development programs and clearly defined size specifications for supportive operating facilities. At any time prior to the construction of this facility the Committee may entertain new information which might bring about changes in the nature of the Center programs or the size specifications of the operating facilities.

The 1967-68 Committee
January 31, 1968

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- A. An Organizational Model for Instructional Research and Development Activities
 - B. Rationale for the Planning of a Learning Center Program and Supportive Operating Facilities
 - C. Size Specifications for Operating Facilities and Comments on Adjacency
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- A. An Organizational Model for Instructional Research and Development Activities

Group Participative Planning

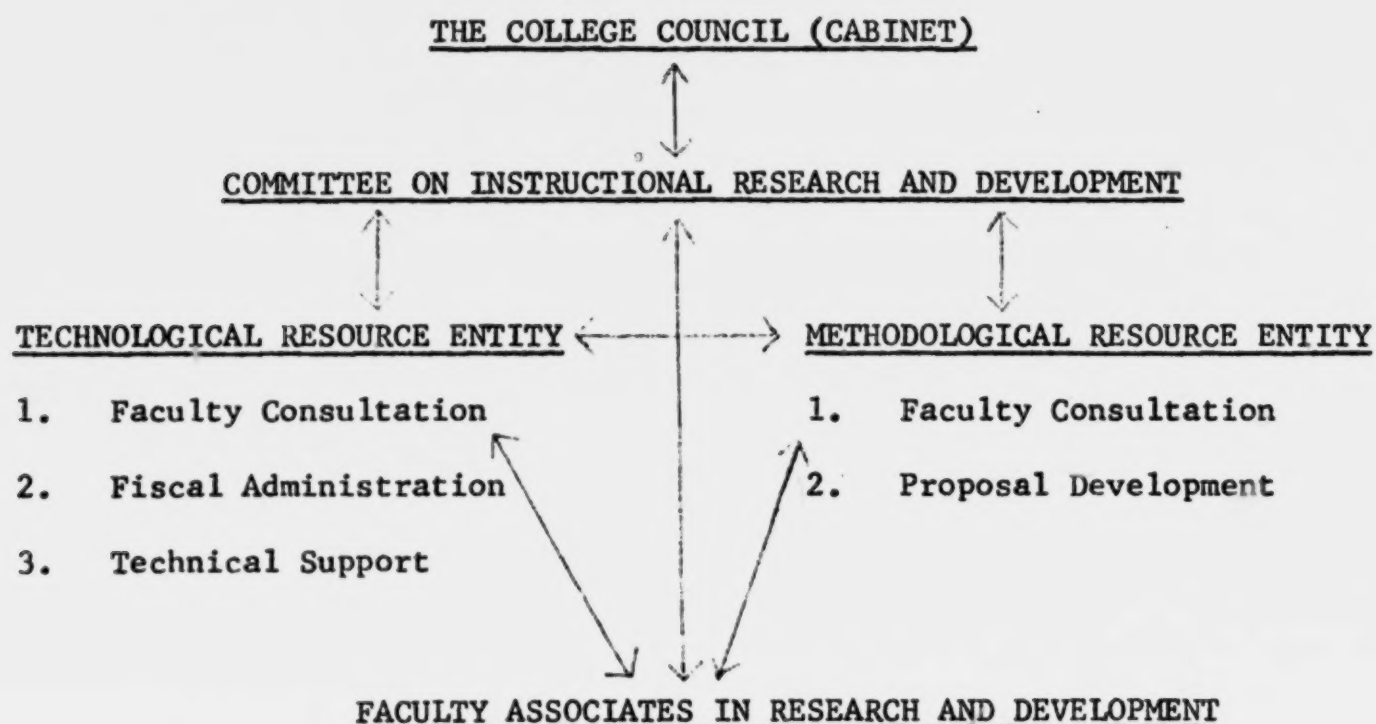
The following conceptual scheme for organization of instructional research and development activities at the College of Marin is probably best defined as a group participative plan. The intent is to create a viable cooperative system where all participants -- faculty, administrative, and supportive technical personnel -- contribute to the fullest extent of their interests and talents in a democratic action system. The rationale for this organizational model is that the greatest efficiencies and accomplishments are gained in a research and development environment when there is an alliance by every participant in accord with or relative to their particular inspirations and proficiencies. To express it differently, in implementing decisions the implementation can be done more intelligently if the person who is expected to carry out the decision has participated sufficiently to understand the reason for making the decision, or has had a chance to express his views about the nature of the decision that is to be made. This organizational model is highly effective when applied to a group of professional men and women. Professional persons have unusual education and a high degree of specialized knowledge. They cannot be treated as employees in every sense of the word, but are essentially peers. Thus, for dual reasons -- that they have special ability to contribute to wisdom in making decisions and that their status as peers gives a special reason for them to be consulted about matters of concern to them -- the plan of group participation operates well under these circumstances.

Overlays of Relationships

The frame of reference proposed here as an organizational model for instructional research and development activities at the College is a cooperative system with adaptive social structures which are made up of interacting individuals, sub-groups, and informal plus formal relationships. It is a mobilization of fluid resources -- human talent and initiative, money and technical production and supportive facilities. The picturization of dynamic human relationships in the research environment is difficult because the organization of functions is purposely not standardized, controlled and supervised in a bureaucratic hierarchy. In such an enterprise the true relationships become very complex and vary widely from charted descriptions and from position to position within the organization. Hence, organizational charts of the usual type are bound to be incomplete and

inaccurate in their description of the actual situation in a research and development environment. In order to conceptualize the true operational organization of such a democratic action system it would be necessary to study the functions actually carried out by various designated persons, the social relationships and their implications for all members of the group, the manner in which decisions are actually made, the identification of the types of influence and the foci of influence, and the networks of communications, both informal and formal. An approximation of the true nature of the research and development organization and the manner in which it operates could, perhaps, be obtained best by making five charts -- functional, sociometric, decision-making, influence, and communication network -- based on examination of the actual situation.

The following organizational chart (proposed) for instructional research and development activities at the College of Marin conforms generally to the usual practice of portraying organization. The form of relationships outlined is intended to be in every manner respectful of the recent organizational structure established at the College.



B. Rationale for the Planning of a Learning Center Program and Supportive Operating Facilities

In recent years higher education has become more fluid and dynamic, not only in terms of its own processes, but also of its objectives. What is most significant, however, is that this is not just a temporary condition of colleges and universities.

Methodological and technological change is not a curious and unusual temporary condition influencing the teaching-learning situation of instructors and students. It is rather a characteristic of the college's new role in

society, and continuing methodological and technological change may well be the rule rather than the exception in collegiate institutions, just as it is for an increasing number of other institutions (e.g., business-industrial, governmental) in our society. All the forces within higher education will have to adapt to changes that will continue to come from multiple and divergent sources in society. There are at least four areas in which the need for such adaptation is fairly obvious:

1. New Knowledge

Educators and their students are confronted with the problem of acquainting themselves with new knowledge of all kinds, proliferating in almost every direction. From new insights into human and animal behavior obtained from the research in anthropology, sociology, psychology and biology to new theories of chemical bonding -- all this will become part of mankind's consensual body of knowledge. It will not only be taught the students matriculating in collegiate institutions, but will move into the content of the necessary life-long education that most people will find it necessary to undergo.

2. Content of Education

Another obvious influence affecting collegiate institutions has been the advent of new approaches in the content of education. Educators and their students are faced with new designs in the curricula. There is the "new criticism" in literature, "modern mathematics" in the area of quantitative reasoning, the wave theory approach to physics, and a host of interdisciplinary approaches to the fine and performing arts, the behavioral and social sciences and the technical-vocational specialties. Most traditional academic programs of the liberal arts and sciences as well as the technical-vocational specialties are currently evolving remarkable curricular transformations.

3. Innovation in Educational Technology

There is no question but that what Norbert Wiener called the "Cybernetic revolution" has begun to hit full stride in our society. Audio-visual instrumentation is having an impact on man's thought processes analogous to the impact of the industrial power tools on his hand-skill work habits. In recent years, educational methods and instrumentation have been changing at a pace commensurate with the rapid technological advances in other phases of our society. Each month brings its new ideas and new devices -- automated information machines, videotape systems, computers adapted to self-instruction, telemation, and theories of graphic communication. Educators and their students will need to adapt to the most promising innovations in this new instrumentation designed to enhance teaching and learning. The new technology of audio-visual instruction, as well as such recent techniques as linear and branched programmed instruction, will give the educator greater accessibility to the cognitive qualities of the student.

4. Analysis of Human Learning

There is sufficient evidence available today to indicate that educators may be approaching a new appreciation of the cognitive qualities of the learner and how he appears to work. The growing knowledge and familiarity with learning, thinking, problem-solving, abstract reasoning, creativity, memory and transfer of training will provide the educator with a conceptual understanding that will unquestionably provide fresh insights into the mental processes of the learner.

In summary, the fundamental reasons for the development of a Learning Center as a system of ideas and framework of operating facilities to advance instructional research and development activities are as follows:

1. To increase the use of some of the most promising devices being developed in educational technology and instrumentation.
2. To provide instructional resource materials for flexible and changing educational programs that must respond to the expansion of knowledge and creation of new disciplines.
3. To provide superior vicinities of instruction that extend beyond the traditional classroom and laboratory and that will foster the personalization and individualization of learning, problem-solving and thinking.
4. To provide an open and aware climate for the furtherance of the most creative and innovative concepts in educational philosophy, theory of instruction and the planning of academic facilities.

C. Size Specifications for Operating Facilities and Comments on Adjacency.

It should be understood that principal concentration of the facilities for The Learning Center will be organized within one structure. This complex will probably be adjacent to the campus library. However, it is not considered advisable to attempt to place all instructional research and development facilities of The Learning Center within one central structure. The campus-wide range of The Learning Center activities should be reflected in the placement of operating facilities (i.e., offices, conference rooms, classrooms and laboratories) as well as by program operation.

	<u>Square Feet</u>	<u>Total</u>
<u>AUDIO VISUAL</u>		
1. Audio Visual Classroom	900	
2. Darkroom (3 room complex)	450	
3. Preview Rooms (4 at 120)	480	
4. Film Examining Room	120	
5. Audio Visual Office	120	
6. A.V. equipment storage, supply storage	430	

	<u>Square Feet</u>	<u>Total</u>
7. Film, Tape Library Room	200	
8. A.V. Check-out Area and A.V. Main Office (filing, etc.)	150	2,850
9. Audio Visual Information Retrieval Center (150 student stations @ 40 sq. ft. each)		6,000

GRAPHICS

Graphics Office and Work area		300
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TELEVISION AND FILM R & D AREA

TV/film Production Studio	1,500	
TV/film Storage for Equipment (3 @ 2-150, 1-200)	500	
Offices - Faculty Associates in R & D (6 @ 200)	1,200	
TV Master Control	300	
Resource and Materials Center	400	
Film Editing Room	200	
TV/film Production Control Rooms (2 @ 120)	240	4,340

SHOP AREA

Office and Supply Storage		
Painting Booth		
Work Area, Machines and Assembly		1,200

<u>ELECTRO-MECHANICAL REPAIRS, ETC.</u>		200
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OFFICE AREA - ADMINISTRATION

Office of Assistant Dean of Instruction - Media	200	
Office of Secretary to Assistant Dean of Instruction - Media	100	300

DUPLICATING AND COPY CENTER

Includes Faculty Stenographic pool (2)		<u>2,700</u>
		17,890

SINGLE ELEMENT MAGNIFICATION IN LIFE SCIENCE INSTRUCTION

Mr. Leonard D. Bayer in Charge - Biology Department

The basic purpose of this project was to study the use of greatly magnified images of certain laboratory demonstrations in the life sciences and how these images might be transmitted to students through television monitors placed strategically in the biology laboratory. This was the first attempt to use closed-circuit television in regular classroom and laboratory situations to experiment with the different uses of this equipment as an aid to instruction.

The advantages in using the style and caliber of the equipment were two-fold because:

1. It was fully portable and could be used in nearly every classroom and laboratory on campus.
2. The instructor could operate all the equipment himself. A technician would only be needed to deliver, arrange, and remove the apparatus.

For life science instruction the apparatus would be used in the following manner:

1. To illustrate biological materials such as slides of bacteria, plant and animal cells and tissues, and live organisms found in stream and lake water.
2. To illustrate tissues and organs of freshly dissected material. This was a particularly important aspect of this project as there is no other way to project wet or fresh material for the whole biology class to see at one time; through the use of this apparatus the instructor could point out structures that the students often miss and perform experiments on the material in full view of all students.
3. To project images from slide material seen through the microscope.

As a result of this first investigation into the usefulness of this apparatus by Mr. Bayer in 1965, other instructors in other academic disciplines and technical-vocational specialties have either used or intend to use this equipment as an aid to instruction in their classrooms and laboratories.

SINGLE-TOPIC FILM SERIES WITH VERBAL COMMENTARY FOR INSTRUCTION IN THE EARTH SCIENCES

Mr. Stephen C. Bruff in Charge - Geology Department

This research project is directed towards producing a series of "single-topic" 8mm. color movies with recorded taped comments and sets of 35mm.

slides all arranged in a synchronous fashion for the student. These synchronized audio-visual instructional sets would be placed in the library or other supervised areas on campus where the student could play them at his convenience between classes. The sets would be available for the student to become familiar with the material either before lectures, field trips, or regular earth science classroom and laboratory instruction. The basic idea is to provide the student with an avenue whereby he can cover portions of the content of a given course by seeing color movies or slides with the instructor's comments taped and synchronized with the visual material.

This project was deemed valuable because:

1. The student gains a new audio-visual experience with especially prepared materials developed by the resident faculty.
2. The student can individualize his experience with the phenomena by taking the time to play it many times over if this assists him to increase his knowledge of the content in each instructional set.
3. Beyond the initial preparation of the instructional set, the instructor's time is not unnecessarily consumed in repetitive detail.
4. Clerks, not the instructor, could supervise the use of the instructional sets and the apparatus used to convey them.

These instructional sets have been applied in the following manner:

1. To convey aspects of lecture material in the earth sciences. In some cases where regular lectures involve the use of diagrams, charts, or pictures that are brought together in a concise package, the student has the opportunity to gain the material as a preview or in a review.
2. To enhance the understanding of concepts. In many lectures certain concepts in the earth sciences are brought out that some students do not immediately grasp. Such concepts can, in most cases, be illustrated and discussed in the synchronized instructional sets. Again, the student can individualize his experience with the material by playing these sets as many times as necessary until he gains full understanding of the concepts under study.
3. To use in preparation for or review of an earth science field trip. In many ways this application of the synchronized instructional sets would most benefit the geology student. The actual field trip in the same sequence as it was taken could be provided to him on the instructional set. Also, details that can be expected on the trip could be emphasized. In addition, a set of synchronized instructional sets designed to help the student understand the geologic features of a region can be provided the student if he is unable to participate in an earth science field trip experience.

As a result of this first organized use of synchronized multi-media material to aid instruction in an academic discipline, the College has gained

an instructional research and development trailer unit that at this time is devoted entirely to ongoing investigation into the utility of the earth sciences project. The progress made by Mr. Bruff in association with some of his faculty colleagues has led this college to the point where we are confident of developing a similar permanent multi-media retrieval area as an element of the instructional research and development portion of the new library complex. Stated simply, we have gained much new knowledge in the use of intricate audio-visual apparatus to aid the instruction in both the liberal arts and sciences disciplines and the technical-vocational specialties.

DEVELOPMENT OF AN "AUDIO-TUTORIAL" APPROACH TO EVALUATE WRITTEN ASSIGNMENTS IN ENGLISH INSTRUCTION

Mr. Leonard A. Weiss in Charge - English Department

This project was an attempt to substitute verbal commentary for written commentary on assignments made of students in English classes. His proposal to the Committee on Instructional Research and Development was as follows:

After I had finished grading a recent set of 1A essays, it struck me that I was writing roughly 200+ words of commentary for each 500+ word student theme. That's 5,000 words per class assignment; about 40,000+ words per class each semester! This is at least five times what any individual student in the 1A class is expected to write! This seemed to me an incredibly cumbersome method of communicating, given the advanced state of our technology.

It is now my belief that if each student had his own tape upon which I could record a verbal commentary, and if he could listen to it and then come to me with any questions he might have -- that this, though possibly no quicker, would be a much more effective way of handling the problem. It would, in a sense, amount to Taped Tutorials. The verbal commentary, of course, could be much more extensive than my written commentary now is, since this latter is determined by my speed of writing, the amount of marginal space I can use, the relatively short duration of human life, etc.

The whole project, I should think, would require neither more nor less of my time. It would, however, require that I have a tape recorder at my disposal and that the students have a number (5? 7? 10?) of recorders with earphones available in some room on campus and that each student have a tape for the semester on which I can record, erase, record again, etc., etc., the comments pertinent to that student's work. (I can't envision any compromise here -- except that I could record my comments on campus rather than at home, if necessary.)

I should add that the student who wants to ponder problems at home would be able to make written notes from my taped comments, written notes which would be understandable to him rather than -- let's admit it -- the often-cryptic marginal comments which he now faces.

Evaluation of the project would be difficult since it would be a way, not of doing anything NEW, but of doing BETTER something which we do already. Perhaps the first group of students could be given both written and recorded commentary and asked to respond at the end of the semester as to their relative efficacy. I don't see (since we only have one student for one semester in 1A and since students differ so greatly) how we could evaluate this according to achievement or GPA or by plotting growth on some chart or other. Although, obviously, if grades fall dramatically, my idea is a bad one.

UTILIZATION OF SINGLE-LOOP PROJECTION CONCEPTS TO REINFORCE INSTRUCTION IN MACHINE TOOL TECHNOLOGY

Mr. Donald R. Greenfield in Charge - Vocational and Technical Education Department

I. The Need

One of the critical areas in the presentation of curricular materials in the Industrial Arts and Vocational Education areas of both the secondary schools and junior colleges is the technical demonstration. The instructor is continually plagued by "learning problems" that are created when the technical demonstration is utilized. It should be mentioned that the technical demonstration is the most important and useful of all means of presenting information to the class, and it should be capitalized upon whenever possible.

Assume that the theory of a concept has been presented to the class, including text assignment, discussion, etc., and the class is ready for the demonstration. The following problems become manifest:

- A. Immediately evident is the "problem" of visibility. How can 15 to 24 students clearly observe a demonstration when they must be crowded about a machine?
- B. The attention span of students varies, but compound this with the youngsters standing in a confined area and the amount of retention surely swindles.
- C. What about the youngsters who for one reason or another are absent? Coupled with this is the problem created when transfer students arrive after the initial essential demonstrations are concluded.
- D. Regardless of where the student stands when observing the demonstration, it is questionable whether or not he is looking at the correct moving part, handwheel, or cutting action at the correct time.
- E. There is generally a time lag between the actual demonstration and the students' application of the information or skill. This usually requires the instructor to practically repeat the highlights of the demonstration for many students on an individual basis.

- F. Certain areas within the curriculum pose hazardous problems like welding and burning demonstrations as well as the pouring of hot metals. Even spray painting or demonstrations involving the use of chemicals -- plating or acid etching -- contain an element of "risk" when a group of students is in attendance.

II. Possible Solutions

- A. The advent of audio-visual materials including T.V. has had some interesting and beneficial results; however, concerning commercial motion pictures:
1. This kind of material is not always available when it is needed.
 2. A lecture area is necessary, and not all laboratories have one.
 3. Commercial motion pictures, while good, do not specifically cover the points that apply to the particular instructor's demonstration. In essence there is much superfluous information present.
- B. Concerning closed circuit T.V. and/or video tapes:
1. The cost, while continually decreasing, is still relatively prohibitive for an economy-minded school district.
 2. Demonstrating before a T.V. camera poses some rather unique complications; namely, not every instructor can demonstrate, talk, and yet maintain "camera awareness" during a "one shot production".
- C. Concerning job sheets, information sheets, procedure sheets:
1. This type of prepared material is of significant aid to the student as reference information. The ideal demonstration is one in which the actual demonstration is supplemented by specific prepared information of this nature.

III. What is Needed

A means of showing a reproduction of the demonstration to reinforce the actual demonstration. One that is economical to produce and can be shown with relative ease. (It should be operable by the student.) A film that may be retained by the instructor for use by the individual student in the shop. A film that may be shown without darkening the room, and one that does not require a screen.

IV. What Apparatus is Available

- A. 8mm. camera to take films.

B. Automatic sound projector. (No screen required.)

C. Cartridge to encapsulate film, film, processing, sound stripping, approximate cost about \$50 per film. Copies can be made for approximately \$25. This does not include cost for time required to make the film.

V. The Single Loop Concept

With the equipment in item IV a demonstration may be photographed with an actual shooting time of about three hours. After the film is edited and processed, it is sounded using the narration technique. The film may be made covering those principles and techniques that the instructor feels are necessary. A 45 minute demonstration can, in this way, be condensed to a 10 or 12 minute film in color. By means of camera technique close ups direct the students' attention to the "critical" areas of the demonstration -- no distractions. Cartridges facilitate loading and unloading of the projector without any audio-visual training. Thus, in the event a student needs to refresh his memory he can select the correct cartridge, install it in the projector, and then watch the demonstration in the school shop. In ten minutes he is prepared to do the operation. Lights need not be dimmed, the instructor need not arrange for a projector and screen.

Perhaps the best results may be obtained by:

A. First witnessing the actual demonstration and asking questions.

B. Watching the film in a group follow-up gathering.

C. Distribution of job sheets, information sheets, procedure sheets.

D. Having the film available in the shop for student memory refreshment as it is needed.

VI. The Proposal

In order to measure or obtain some indication of the feasibility and/or value as a teaching aid of films of the outlined nature, I propose a study where:

A. At least three films be made of technical demonstrations in the machine shop area. (These would be made at the College of Marin.) A critical analysis be made of the time and materials needed to do an adequate job.

B. The concept be tested in at least two of the local high school beginning machine or metal shop classes. In one class only the three live demonstrations would be given to the students. This group would serve as the control. In the second class both the demonstrations and the films of the demonstrations would be pres-

ented to the students. The control group would be weighted, if possible, with respect to interest and achievement.

- C. I believe some measure of practical value may be discernable by means of observation, recording of data, and questionnaire response from the two groups.

There are several design arrangements possible.

Detailed analysis to be made at the conclusion of the study for possible distribution and/or publication.

This experiment resulted in a new refinement of the methods involved in the development of single-loop projection concepts to reinforce instruction in fine hand and eye coordination while performing certain detailed tasks required of students in the vocational-technical specialties.

UTILIZATION OF SINGLE-LOOP PROJECTION CONCEPTS TO REINFORCE MEDICAL-SURGICAL TECHNIQUES IN NURSING EDUCATION

Miss Shirley Conklin in Charge - Department of Nursing Education

General Overview: Single-loop projection is a fairly new film method which provides for enhanced student learning as well as the freeing of the teacher for more advantageous use of student-teacher contact time.

In nursing, numerous techniques are taught in the classroom laboratory. These techniques are usually demonstrated one time only, and then the student is allowed to perform these techniques in the hospital. Often-times, a long period of time elapses before the actual experience is available for actual performance in the hospital. The teacher must then re-teach the technique or the student returns to the laboratory and practices on her own, sometimes without supervision. Faulty re-learning often-times ensues.

Technique: The instructor of the nursing class works with the College Audio-Visual Department in planning for filming. The instructor does the demonstration, editing of film, and the narration. These films are then processed and placed in cartridges. The student then inserts the cartridge into the viewer, turns on the machine, and views the film. She can do this independently as many times as necessary for reinforcement of knowledge.

A library of 40-50 cartridges available at all times along with a viewer in the nursing laboratory would be most desirable.

Possible plans: A control group could be selected eliminating as many variables as possible such as age, educational background, etc. One procedure or technique could be taught by the viewer alone without the aid of the teacher, e.g., putting on surgical gloves. The control group would view the film, then practice on their own. The other group would be taught by

one demonstration by the teacher, then allowed to practice. Evaluation of results would be determined by an objective set of criteria. It is hypothesized that learning by use of the viewer will be as good if not better than the traditional method.

The primary values therefore would be:

1. Increase of student/teacher contact time in a more worthwhile manner.
2. Reinforced learning for students.
3. Opportunity for an increase in independent study.
4. Lessening of incorrect re-learning of a procedure.

The effort devoted to this initial instructional research project by the nursing education faculty was instrumental in the development of such innovative theoretical formulations designed to guide the initiation of original teaching styles that this program now enjoys the highest nation-wide reputation. For the past year Miss Conklin and members of the nursing education faculty have been preparing a manuscript -- one which has been assured acceptance -- that will offer a detailed explanation of their accomplishments to other instructors teaching in academic and technical-vocational nursing education programs.

DEVELOPMENT OF A PRODUCTIVE INTEGRATED RELATIONSHIP BETWEEN MULTI-MEDIA INSTRUCTIONAL SETS AND ACADEMIC LECTURE MATERIAL IN THE TEACHING OF ELEMENTARY PHYSIOGRAPHY

Mr. Stephen C. Bruff and Mr. Kenneth J. Miller in Charge - Geology Department

Proposal:

To use Geology 2 (Elementary Physiography) as a pilot course to determine the feasibility of using tapes, slides with sound, and sound films as a substitute for some of the standard lecture material. The audio-visual materials would be produced by the instructors and integrated into the course.

Basic Purpose:

To discover if lectures on tapes, in conjunction with slides and films, can adequately replace at least two lectures of a 3-unit course, thereby allowing the instructor time to meet students in small study groups while still covering the same material, and to increase the effectiveness of the learning process. Also, to provide a closer student-teacher contact.

Details:

1. Approximately 1/2 to 2/3 of the lecture material will be taped, placed on 8mm. sound film, or presented by 35mm. color slides with sound.

2. Students will be expected to listen to the synchronized tapes and filmed lectures, and to watch the 35mm. visual materials during scheduled periods.
3. Student stations for looking and listening with earphones (similar to the language labs) would be provided for five students at one time.
4. A workbook with questions to be answered by the student will be prepared as part of the taped-filmed material.
5. Groups of 10 to 15 students will be required to attend one-hour quiz sections every other week. Demonstrations, laboratory work, and discussion-seminars will be used on weeks when quizzes are not offered.
6. Each student will be expected to have a 30-minute conference with the instructor every other week. No more than five students will attend a single conference.
7. Examinations will be given at determined intervals in the quiz sections. These examinations are expected to be similar to the ones presently offered, and hence there will be a basis of comparison between the lecture method proposed here and the current lecture method. Also, for the Fall Semester 1967, one section of Geology 2 be given using this taped-filmed method, while the other two or three sections be given using the regular three-hour per week lecture method.
8. Library reference materials as presently required for study by each student will still be expected.
9. It is suggested that final examinations be given whenever the student feels he is prepared during the last month of the semester. Thus, accelerated students may be able to finish the course in advance of the scheduled final examination period.

Comments:

(Assuming a class size of 40 students while being held in the present building. With the new building, numbers may be increased.)

1. Contact hours per week, from the point of view of the student:

Present Lecture Method

A. 3 hours per week of lecture

Proposed Lecture Method

- A. 1 hour per week of lecture
- B. 1 hour every other week of quiz section and demonstration laboratory
- C. 2 hours per week (minimum) of watching audio-visual materials and using workbook

Present Lecture Method

Proposed Lecture Method

- D. 30 minutes every other week of scheduled conference groups of 5 students and the instructor

Total hours in classwork: 3 hours

3 3/4 hours
(including 1 3/4 hours
with instructor)

2. Instructor contact hours per week:

Present Lecture Method

Proposed Lecture Method

A. 3 hours of lecture x 40 = 120

A. 1 hour of lecture x 40 = 40

B. 2 hours of quiz section x 10
(ea.) = 20

C. 2 hours of conference (4 sections
@ 30 minutes each @ 5 students
each) = 20

Total hours in class: Present 3 hours

Proposed 6 hours

Basic Advantages:

1. Low achievement students can attend scheduled 1/2-hour conferences every other week where they can receive special tutoring and may have a special 1/2-hour conference by special arrangement with the instructor.
2. Low achievement students can repeat the taped lectures and visual material as many times as they feel it is required.
3. Low achievement students can ask questions and enter into the discussions held during the quiz sections that are not possible in the 3-hour lecture method.
4. High achievement students can advance through the course as rapidly as they wish. They could be permitted to take the final examination early, then they would be able to use the last weeks of the semester for study in other courses. Also, the low achievement students can be scheduled for more conference hours.

Changes in present class assignments and equipment necessary to implement this change by the Fall Semester 1967:

Requirements to get project started and completed:

1. Permission to change a 3-lecture per week course to a 1-hour lecture, 1-hour every other week quiz section, and requiring the student to study material covered by tapes, films, and a workbook. Scheduled 1/2-hour conference for 5 students, every other week.

2. Permission to allow a 3-hour teaching load to be counted for each 40 students.
3. Permission to allow students to accelerate and take the final examination at an earlier time, agreed upon by the instructor and the student. In this case, students would have this final examination grade be the determining grade for the course.
4. Permission for the instructors involved in this program to have 3 hours of released time from their teaching load for the time this program is being developed, i.e., Spring Semester 1967. This time of 6 hours for one semester is only a fraction of the estimated time the development of the program will require. The extra time will be donated by the instructors. This includes:
 - a. Choosing subjects to be filmed
 - b. Writing scripts.
 - c. Finding, judging value of, and direction of photography and materials used.
 - d. Editing film, slides, and tapes.
 - e. Making sound tracks and tapes.
 - f. Constructing workbook.
 - g. Assembling the carrels.
 - h. Re-writing the basic course to fit this new procedure.

It must be understood that in this project the production of tapes and film may take longer than one semester and a summer. Therefore, if it is deemed necessary, permission is requested to adjust the number of lecture hours from 1 to 2 and omit the quiz section in the first trial semester - Fall 1967.

5. To make this program work, these requirements of technical assistance, equipment, and space:
 - a. Technical assistance from the Audio-visual Department will be required in photography, art work, and other technical details.
 - b. Equipment, see item 7 below.
 - c. Space, see item 7 below.
6. Evaluation:
 - a. Using the "Item Analysis" evaluation procedure from the Data Processing Center, the exams used in this course will be compared with similar exams in former semesters.

- b. Course questionnaires will be given to students near the end of the course.
- c. There will be an instructor evaluation procedure.
- d. There will be a comparison of classes in Geology 2 given in the customary 3-hour lecture method with the same course using the integrated multi-media and lecture method.

7. Equipment and space:

- a. At least 10 tape-film student stations (carrels) with earphones and tape recorders. 5 of the stations to be equipped with a Fairchild Mark IV 8mm. automatic continuous sound projector. The remaining 5 to be equipped with carousel 80-slide projector and programmer.
- b. Space for above, slide projectors, and programmer. Also office space that can be used to produce the films, slides, and tapes. We suggest a 10' x 40' trailer to be arranged between the wings of the Science Building.
- c. Supplies to produce and operate the equipment.
- d. The following list represents a minimum requirement to get this project from its present status to the research phase of the instructional program in Geology 2:

Equipment from sources other than Instructional Research:

1 trailer of 450 sq. ft., equipped

Equipment to be purchased with Instructional Research funds:

- 5 station-study carrels
- 5 Norelco RK-25 tape recorders
- 50 Norelco tape cartridges
- 12 earphones and jacks
- 4 carousel Model 800 slide projectors
- 5 Mark IV Fairchild continuous sound projects
- 5 carousel tape/slide programmers
- 100 carousel slide trays
- 30 cartridges for Fairchild
- 1 editor/splicer
- 1 Repronar slide copier

Tools, light bulbs, connectors, wire, and other supportive supplies

Supplies:

- 50 36-exposure 35mm. Kodachrome film (including development)
- 50 8mm. 50' Kodachrome movie film (including development)
- Title letters, paint, and other visual aid supplies

A progress report sent to the IR & D Committee by Messrs. Bruff and Miller contained the following comments which describe the difficulties they experienced developing this project:

Sequence of Events -- Earth Sciences IR & D Project, Fall, 1966

1. Selection of equipment and its acquisition, plus finding space to prepare films and tapes required a great deal of time and effort.
 - a. Three 8mm. sound films were produced on geology and used in the Fairchild projectors. These were crude, but were satisfactory as far as they went. The time consumed in making a 12-minute film -- using the geology lab as a studio -- convinced us that we needed a space where equipment could be set up and left without interfering with regular classes. The time required to make such a film averaged, including all aspects, about one hour for each of two instructors for each minute of film, or two hours per minute. Thus, we suggested getting the trailers to be used as a work area and later as self-study center for students.
 - b. Equipment problems were numerous; we studied the type of equipment that would suit our requirement and budget and once we decided, delays in delivery of certain items of equipment complicated production. Some items of equipment are still back-ordered!
 - c. Proper projection and sound recording equipment for putting sound on film is still not available.
2. When our six hours of released time arrived we had hoped to have the trailers, but for many reasons they were delayed. So during Spring Semester we used the men's locker room in the Old Field House. This was an extremely depressing environment for any creative work. So our released time was used to get the equipment, learn how to use the equipment and try to train student help in the film production. We ended Spring Semester with little to show for the released time. However, the following items were accomplished:
 - a. An 8mm. film on the San Andreas Fault in Marin County is complete, but without sound.
 - b. A 15 minute film on a field trip is complete but no sound.
 - c. Slides with tape on "Deformation of the Earth's Crust" was started by Mr. Bruff.
 - d. Air shots used in these films were taken by Mr. Miller.
3. During the Summer Session, Mr. Bruff worked on production of film footage on several aspects of geology. A 16 minute film on "Mass Waste" was prepared using slides, diagrams, and footage taken in Marin County. Sound would have been put in this film, but the processing company put the magnetic tape on the wrong side of the film -- so it will have to

be redone. Audio-visual artist, Charles Fleischman, produced many excellent color diagrams that we can use in later films or slide sets. So we ended the Summer Session with one film produced and a good start on the artistic work, and several hundred feet of clips on a variety of subjects. Since the trailers had not arrived this was done in the geology lab and the old Field House. In the middle of the summer we had to leave the old Field House so that it could be torn down.

4. Mr. Miller has prepared, at home, a series of audio tapes keyed to mineral specimens which describe the physical properties and recognition of 34 different minerals. This is the one part of our program that has received the most student use so far. It has proved highly successful. Mr. Miller has just completed another similar program on the identification of 30 different rocks. Similar taped lessons on map reading and air photo interpretation are contemplated for the near future.
5. This fall (1967) we started out with the trailers, which are now being used as Mr. Bruff's office and film-slide production work room. Carrels are being delivered. Some make-do furniture is present and one-half of the carrels are in place. The carrels will have to be wired to accommodate the equipment, but could be used on a temporary basis, except that there is no student help to check materials in/out and supervise the equipment. Mr. Miller's office has been used as a temporary control center for checking in and out materials until help is available. We have been using our film and tapes of rock/mineral description in the geology lab, a very upsetting and confusing system in this location, but showing great potential.

At present we have available for student use:

- 3 8mm. color/sound films produced by us, completed.
- 3 8mm. color/sound films produced by us, no sound.
- 10 8mm. color/sound films produced by professional firms, completed.
- 1 35mm. still-slides/sound on tape, completed.
- 3 35mm. still-slides/sound on tape, in process.
- 2 sound tapes keyed to mineral tray of 34 minerals, completed.
 - a. One on mineral identification.
 - b. One on mineral uses
- 3 sound tapes keyed to 30 rocks - completed.
 - a. Igneous rocks
 - b. Sedimentary rocks
 - c. Metamorphic rocks

From the little the tapes and films have been used we can see a valuable contribution to our courses as supplementary work by the student. We are not prepared at this time to make a comparative analysis between the use of the new integrated multi-media instructional sets and revised academic lecture material with the traditional methods of teaching elementary physiography.

UTILIZATION OF AUDIO-FEEDBACK TECHNIQUES IN LANGUAGE ARTS INSTRUCTION

Mr. Joseph C. Morel and Mr. Jean Paul Trelaun in Charge - Language Arts
Department

Proposal for development of filmed and videotaped materials in French for the Language Arts Department.

The Language Arts Department has periodically developed audio materials on tape for use in the language laboratory. These tapes, along with commercially developed tapes serve to give the students additional practice in speaking and listening to the language, and they are available to the day students only, because the labs are used as classrooms in the evening, and there is no time for individual work with language tapes. Students taking evening conversational language courses are likewise denied access to the laboratory because of a lack of free lab time.

Mr. Morel and Mr. Trelaun have been exploring the advisability and possibility of preparing visual materials, both filmed and videotaped, to be made available to all the students on this campus (credit and non-credit, day and evening) for several reasons:

1. Filmed and videotaped materials have one great virtue when it comes to teaching and learning a foreign language. They are visual, and thus allow the student to see and hear simultaneously, thus having the opportunity to mimic the proper sound as it is modeled by the person on the screen. This is essential because lip movements and other features of sound reproduction must be "seen" in combination with the sound that is "heard" to achieve correct pronunciation. The availability of visual material would reinforce the taped materials that are presently available at the language laboratory.
2. Some students have more difficulty than others in acquiring the proper pronunciation (stress patterns, intonation, rhythm, pitch) in the foreign language. The audio material is not enough for them. They have to "see" a sound repeatedly, in order to reproduce it properly. Although pronunciation practice does take place in the language classes, many students need more practice than can be given to them to achieve a satisfactory pronunciation. The visual materials would allow these students to get as much additional practice as they need and would "extend" the presence of the teacher outside of the classroom. Mr. Morel and Mr. Trelaun feel that this would be invaluable experience for all students.
3. The materials that we would like to develop are as follows:

A series of ten-minute, single concept sound movies (about 20 reels altogether) which would constitute a complete elementary and intermediate program in phonetics and pronunciation, carefully arranged to take the student through the basics in French pronunciation, from simple sounds through whole paragraphs. Students would have these

materials available to develop their pronunciation, or review it. Transfers from other colleges and from high schools would benefit from this. In order to prepare this program, they would need several things: 1) sound movie cameras, personnel to film the movie, personnel to prepare the visual material (charts, etc.) that would go with each movie; 2) the possibility of paying some of the native speakers on campus to model some of the material, in order to give the students as broad an exposure to a variety of French accents as possible; 3) facilities to type and duplicate the written materials accompanying the movies. Eventually they would hope to prepare a manual which would be printed and made available to all the students in French.

4. Videotaped materials: The use of television in language teaching is a relatively new phenomenon. It has one virtue, and that is that it allows the presentation of current material which can be discarded (by erasing the tapes) after its usefulness is ended. Videotaped materials would serve another purpose: that of enriching the students' understanding of the language and culture they are studying. Mr. Trelaun and Mr. Morel would like to use the television medium to develop a current library of French materials that have a cultural orientation. They would like, for instance, to film some programs in the form of a round table discussion. They would provide the bulk of the material, by sitting down in front of the cameras and discussing in French various topics of interest to their students. This would have two advantages: 1) it would enormously extend the amount of conversational vocabulary and 2) it would allow the students to see Mr. Trelaun and Mr. Morel in a "relaxed" situation, discussing a variety of topics, as they normally do, but modified to fit the student's level of understanding and area of interest. These programs would be attractive enough, they hope, to stimulate the good students further and expand learning efficiency. There would be the added advantage of achieving a "team teaching" situation, which they cannot obviously do "in vivo", due to their present teaching loads. Another advantage of videotaped materials would be that they could invite French-speaking citizens and other French speakers (visitors, diplomatic and cultural personnel, etc.,) to come before their cameras and contribute their talents to their video programs. There might be a fee to be paid at times, and they would like to be able to remunerate the College of Marin students who would participate in these programs.

Mr. Morel and Mr. Trelaun visualize the video program as a "continuous" process on this campus. The range of topics of discussion and situations that can be videotaped is endless. The only problem is "money" and "time." They feel that if they were given an opportunity, both in terms of finances and time to prepare these materials, they could develop a substantial filmed and video library which would stimulate our students and give them much broader opportunities for contact with the target language. Further plans in this direction would involve filming or taping plays, skits, etc., by enlisting the help of their advanced students.

INSTRUCTIONAL DEVELOPMENT PROJECT -- EXPLANATION OF RECENT DEVELOPMENTS IN
SOCIAL SCIENCE FIELD RESEARCH

Mr. Robert W. Essig in Charge - Department of Social Sciences

Mr. Essig felt that both students and faculty members in the social sciences could profit from an exposure to a person who is currently employed full-time in social science field research. As a result the committee funded a two-day visitation by Mr. Robert Heyer of the Field Research Corps. This organization directs the activities and pronouncements of the well-known California Poll. Mr. Heyer's assignment during the visitation included:

1. Lectures on opinion research.
2. Discussions of opinion research in relation to politics and political science.
3. Discussion of opinion research with the local press and the staff of the student Publication Tower Times.
4. Discussion of statistical techniques used in social science field research.
5. Lecture and discussion of opinion research in relation to the field of sociology.

Mr. Heyer was also available to discuss problems in social science field research with interested students and faculty members.

A SEMI-MECHANIZED COURSE ON THE USE OF THE LIBRARY

Mr. Charles D. Mastin in Charge - Library

I am requesting that the Committee on Instructional Research and Development help me develop a semi-mechanized course on the use of the library.

The Problem: It is nearly indispensable for each student to know how to use a library so that he can carry out assigned coursework, amplify and inter-relate courses, develop intellectual self-reliance, and become adaptable to change in post-college life. In spite of the need, however, few of our students know the rudiments of library use and none can make full use of the library. Several years ago a course entitled Library 1 was approved by the Curriculum Committee and added to the catalog of courses. But no staff has ever been provided to teach it.

Alleviation of the Problem: I should like to develop a partly mechanized course whose basic educational device would be practical use of the library to find information. The course would have approximately the characteristics listed below, but the characteristics would be changed as experience and deeper investigation directed. The course would be designed according to these purposes: to instruct effectively; to maximize student freedom,

responsibility, and self-reliance; and to minimize costs. An outline of Library 1 as accepted by the Curriculum Committee is appended.

Course Design:

1. Laboratory course, with practical assignments, making use of the fact that the library is open to students 69 hours a week and is constantly staffed by a reference librarian, a minor part of whose time could probably be devoted to laboratory instruction.
2. Multiple communication, to let each student choose the methods of learning that are most effective for him -- syllabus, textbook, supplementary reading; tape recordings, movies, and other audio-visual materials; discussions; no lectures in person, with the exception of an introductory one.
3. Flexible scheduling -- continual or frequent registration; students to progress through the course at individual rates; tests given at student request; students allowed to repeat poorly learned units of the course.
4. Tests, I.B.M.-controlled, centrally administered testing; sample quizzes and other devices for review.
5. Grades -- two grades only: P (pass, equivalent of C or higher) and F (fail); grade of P to have no effect on GPA.
6. Student participation in planning and alteration of the course; assistance to less-advanced students by more-advanced ones.
7. Administration of the course; over-all supervision of the course by a certificated librarian; personal laboratory instruction by certificated librarians; clerical and mechanized routines handled by library clerks, Testing Center, and Data Processing Center.

Procedure to be used in developing the course: An extraordinary amount of advance preparation will be needed, particularly to prepare a syllabus, tape recordings, movies, and a large number of questions for assignments and tests. The elements of the course will be developed in this order:

1. Selection of text, preparation of bibliography, assignments, tests.
2. Preparation of syllabus.
3. Preparation of tape recordings.
4. Preparation of movies.

The order proceeds from the most fundamental parts, which are easiest to prepare, to the parts which are least fundamental and most complex. As soon as enough materials have been prepared, probably during step 1 above, student volunteers will be used to try out the individual units of the course. I hope that the course can be offered during the second semester

of this year to two sections of about 25 students each, while the more complex materials (principally the movies) are still being prepared.

Professional and supportive time: The College Library Director has allowed me to take some time off from reference duty in the late afternoon and early evening hours. Therefore I will probably need no additional time off until the rudiments have been organized, but will almost certainly need additional time for the movies. It may be possible to make part of one movie with the time I have, and to use that experience as a basis for estimating the time needed for additional movies.

Physical arrangements: For the development of the course, and for teaching it in the second semester, Room L-9 in the library may be enough. One Fairchild movie projector and one Minicorder (tape recorder), along with a small supply of film and tape, will be needed as soon as they can be obtained.

I estimate that ultimately about 16 20-minute films will be needed; the request for them will be made later, when enough work has been done to permit a reasonably accurate estimate.

Evaluating and reporting the project: While the course is being developed and during the first year it is offered, written reports will be issued quarterly to the Instructional Research Committee, covering the following problems:

1. Effectiveness of the experimental methods. The effectiveness will be judged by student performance -- percentage of students completing the course within the time limit, average time required to complete the course, percentage of students passing and failing the course, and the average grade in relation to the minimum grade for passing, insofar as number grades are assigned. It may be possible to estimate the value of the individual methods used -- textbook, syllabus, tape recordings, and movies; but I am doubtful whether it is worth the trouble until after the first year to do this by any means more sophisticated and expensive than inquiries made of the students.
2. Staff time required to design and conduct the course, with appropriate work-load standards to be applied when the course is offered. A record of the time required for all aspects of the course's development will be kept. It may be possible to conduct measured dry-runs of the course in simulated operation, using a group of student volunteers. From the information obtained by such methods, work-load standards will be prepared in cooperation with the Instructional Research and Library Committees.
3. Impact on reference service. (Reference service may be impaired, additional reference librarians may be required, the reference load may increase or decrease.) It may be possible to judge part of the impact by means of statistics maintained at the reference desk, but much of the impact will probably have to be estimated on the basis of the librarians' qualitative observations.

4. Effect on study environment. The course will likely produce commotion in the library near assigned materials. The reference librarians will watch this, and if it is excessive try to find ways to reduce it.

RESEARCH AND DEVELOPMENT TIME REQUEST FOR DEVELOPMENT OF A NEW COMMERCIAL MUSIC CURRICULUM

Mr. Larry A. Snyder in Charge - Music Department

Mr. Snyder requested of the IR & D Committee 3 units or R & D time to develop a syllabus/textbook for a new course in commercial music. The course was to be three semesters in duration with special emphasis in theory and arranging music in the modern idiom. This was to be a first attempt by the Music Department to develop a program for the student who did not intend to continue as a performing arts major transferring to a four-year institution of higher learning. The course was to include the following areas of instruction:

1. Music fundamentals and elementary music theory
2. Jazz harmony
3. Elementary and intermediate ear training
4. Jazz ensemble
5. Elementary and intermediate jazz piano
6. Introduction to contemporary music
7. Jazz harmony
8. Arranging and composing for the jazz ensemble
9. The history of jazz
10. An introduction to contemporary jazz

RESEARCH AND DEVELOPMENT TIME REQUEST FOR ANALYSIS OF CONTEMPORARY ACTIVITIES IN COLLEGE FRESHMAN READING AND COMPOSITION INSTRUCTION

Mr. T. Howell Breece in Charge - English Department

From all the discussions at the College of Marin about teaching English composition, one fact has emerged clearly: no one here really knows how our courses compare with those taught elsewhere. In the past I have made fitful attempts to find out what English 1A was like at the University of California, but a few conversations with the man in charge of the program and one set of student papers were an inadequate foundation for any very reliable opinion.

The trouble is that no one has ever had time to make a proper investigation. Fifteen hours of composition courses, even with the help that readers have given recently, leave scant leisure for anything else.

I propose, therefore, in the spring of 1967, when the Department of English can afford the time, that the department be granted twelve semester hours to conduct a more thorough study than anyone here has yet made of what the freshman composition course is at the University of California, at San Francisco State, and perhaps, if there is time enough, at Sonoma State. To extend our research to more schools would be impossible within the time that I am requesting.

Carrying out the study will require frequent visits to classes at the chosen schools, discussions with teachers and administrators who plan and control the courses, and much reading of student papers, followed by conferences on grades with the teachers or readers who assign them. I know of no other way to form any reliable opinion of the content of the courses, their difficulty, the standards employed in grading, and the possible differences between composition courses in the university and the state colleges. As we have learned from earlier experience, mere letter writing and telephoning have not produced any usable information.

Since the people who will make the study are familiar with the present practices at the College of Marin, they will be able to judge those practices in the light of what they learn about similar courses elsewhere. They will then be able to provide the rest of the department and anyone else interested in the study with both written opinions and informed discussion concerning the comparison between our course and its counterparts in other schools.

RESEARCH AND DEVELOPMENT TIME REQUEST TO ASSESS THE UTILIZATION OF HIGH-SPEED COMPUTATION TECHNIQUES IN ENGINEERING INSTRUCTION

Mr. Michael P. Hansen in Charge - Engineering Department

Mr. Hansen asked that the IR & D Committee support the arrangement of a 13½ unit (instead of 15 unit) teaching load for one semester so that he might devote the assigned time to plan for scientific computer programs and facilities for the natural sciences. His explanation to the committee is as follows:

Like all of the computer equipment at this college, except for one FORTRAN keypunch acquired last year, the 1620 and its peripheral apparatus were brought here by the efforts of the Business Education division. The 1620 was their first computer and among the last that IBM provided at an enormous discount to schools. After its first year of use by Data Processing, they were able to get a similar bargain on even more suitable equipment for their programs, which left the 1620 available to serve an extremely obvious need, and one that it is more suitable to serve than it was for Data Processing. That is, for use in science, mathematics, and engineering computation.

High speed digital and analog computers have revolutionized the sciences just as emphatically as they have the business fields. We have been slow to accommodate this change in our division largely because these developments have followed even my entry to teaching, which was in 1961. The schools to which our students transfer now either demand, assume, or recommend familiarity with some aspects of computers from nearly all students in our division. It is foreseeable that any student without some computer familiarization might be disadvantaged in the near future.

Our division is thus somewhat retarded in its adaptation to these changes in science, education and practice. A year and a half ago I began using the 1620, an analog computer built here some years ago, and Autotutors with programmed instruction about digital computers, in a course required of all engineering majors. I had no formal background in computers then, and have merely a four-week NSF program at Wisconsin last summer since. I hope to be selected for an eight-week program at Missouri next summer. Meanwhile, with this never being more than a fourth of my teaching assignment, I have had to develop competency to teach this on my own and by consulting with everyone I met who was likewise involved.

I feel now that I am competent for the limited program we now offer in scientific computation; but this program does not satisfy the immediate needs in this whole division, and falls far short of what we should be doing in the very near future.

Part of the solution is being prepared. The Science Computer Center is included in the plans for the new Science Building, and will provide the space and arrangement to allow us to conduct the calibre of program that we should. With the proper equipment, a truly significant improvement in all science, math and engineering education can be pursued. Because of our truly good fortune in having the 1620 at a bargain cost, we have the nucleus of a quite satisfactory system. With suitable additions to the 1620, a powerful and flexible system will be available to a broad spectrum of users in all the sciences. The acquisition of the necessary equipment, though a separate problem, is related to this request, and involves a crisis of its own. It was expected that the matter of assuming the 1620 and acquiring the other equipment could be deferred until the new center would be available. The impending Data Processing turmoil now propels the problem of preserving even what we have into immediacy, and demands a speed-up in my planning, already too complicated, to prevent such a disaster as the loss of the computer itself. I must quickly plan how to put the 1620 to greater use in improving our offerings at College of Marin in order to prevent its falling victim to misguided "economy," which would be a giant step backwards.

Thus, I have not only to plan the programs to be made available to our science, math and engineering students; I must also arrange a convenient means for our teachers in at least this division to learn enough about computers to use them, and let their students use them in their classes. I must plan a program to make this facility available to the District's adults for their up-grading. We should be able to involve not only the local high schools, but even an occasional grammar school class in our program, as various computer centers across the country have done.

The quality of education offered at this school is deeply involved in this issue. Our students know it, and will be progressively more aware of it as time passes, which will have adverse effects if we fail to improve what we're doing, but makes improvements very worthwhile for definite, good effects.

THE USE OF SENSORY REPORTING TECHNIQUES IN COMMUNICATIONS INSTRUCTION

Mrs. Rosalie M. Brown in Charge - Communications Department

1. Value and Objective of the Project:

Sensory reporting offers a readily accessible discipline into an accurate and satisfying use of language for students of disparate backgrounds. It requires no specific previous training. It has been used to date primarily for gifted students in creative writing classes. However, I believe it would offer encouragement to students who had been previously discouraged with English classes, as a means of grasping writing skills.

Because I have had good results using this method in a limited way with Communications students, I am asking for the opportunity to explore it more systematically during the teaching of a six-weeks' summer Core Program.

2. Professional and Supportive Assistance Needed:

The project would fit within the framework of the Core Program's Communications 50 class. The research funds requested would be used to hire a consultant in the field specified; to work out a series of exercises by which the students would learn sensory reporting . . . (and other writing skills as the course progressed); to advise concerning teaching methods; to help me evaluate the students' work; and -- especially -- to get this method of teaching tabulated in a practical form for my later use and that of other Communications teachers. Other teachers involved in the summer Communications Department program will observe the classes or confer with the consultant as their class work suggests, and it is hoped that teachers from other departments may find these studies useful.

The consultant would be Mr. Lawrence Hart, who for ten years has been presenting this method of teaching writing in various school districts in the Bay Region; the most recent was the Orinda School District, where he did in-service work with teachers and students. A total of 16 hours of his time would be sufficient for the project.

3. Physical Arrangements and Finances:

The physical arrangements would be the same as for any Communications 50 class.

Funds would be required to hire Mr. Lawrence Hart as a consultant for the project. Since day-by-day project reports will be kept on each student's work, it would be tremendously helpful to hire one student as an assistant for typing for three hours a day.

4. Methods for Evaluating and Reporting Results:

An individualized progress report will be kept for each student, with samples of his work. Much of this work will be done in class, under consultant and teacher direction.

A final evaluation by the consultant will accompany the students' progress reports explaining step-by-step their accomplishment in relation to certain given objectives which the class exercises will embody. The consultant will also make a theoretical analysis of the teaching method.

I will endeavor to do a practical evaluation, stating at what points and in what ways this work seems most functional and useful for Communications teachers or others teaching writing skills.

INSTRUCTIONAL DEVELOPMENT PROPOSAL - A STUDY OF THE FEASIBILITY OF ESTABLISHING A MARINE SCIENCE TECHNOLOGY PROGRAM AT THE COLLEGE

Mr. Gordon L. Chan in Charge - Biology Department

Introduction

Recent advances in the industrial, institutional and governmental areas have made it increasingly evident that there is a great demand for personnel with specialized training in marine science technology. A recent survey of these demands last summer in Seattle, Washington revealed that in the next three years there will be a need of 1,035 persons as marine and biological technicians. In California's booming economy, the demand for technicians must be equally large. It is hoped that the College of Marin will be the first in the United States to institute a Marine Science Technology Program for its students.

The term technician as used in this report is designated as a person without a Baccalaureate degree, and who is trained to use instruments and to record and handle data.

This project proposal is divided into the following sub-sections:

1. Purpose of the Program
2. Procedures Used in the Study
3. Time Schedule of Survey and Analysis of Data
4. Assessment of Existing Training Facilities and the Curriculum

Purpose of the Program

The study of the feasibility of establishing a Marine Science Technology Program at this college will include the following:

1. Survey industries, institutions and governmental agencies concerned with the fields of Marine Sciences to determine the need for marine and biological technicians.
2. Tabulation of the jobs performed by technicians in these fields.
3. Assessment of those facilities which are already established to train these technicians, making recommendations for correlation and addition to the program.
4. Feasibility of setting up a marine technician program at the College of Marin, and with an eventual expansion of the program from Elementary through College.
5. Long range goals:
 - a. Expand the Teacher In-Service Marine Science Courses to the level of a Marine Science Institute for Bay Area Teachers.
 - b. Develop a Marine Science Curriculum in all disciplines from Elementary through College.
 - c. Develop a Marine Science Center in Marin County to include education for all community levels -- from private individuals to large corporations.

Procedures Used in the Study

1. Compile a list of industries, institutions and governmental agencies concerned with the field of marine sciences. The list should include Southern California organizations.
2. Develop a survey form to collect the following information:
 - a. Agency and person interviewed.
 - b. Type of technicians employed.
 - c. Jobs done by technicians.
 - d. Equipment used and training of present technicians.
 - e. Approximate salary, number presently employed, personnel turnover.
 - f. Plans for future employment.
3. Conduct the survey using the personnel interview technique to obtain a better response and more accurate information. The mailed and phone questionnaire system will be used when the personnel interview is not practical.

4. Describe a job analysis for a marine science technician from the data compiled.
5. Set up a Marine Science Technology Program to train marine technicians at the College of Marin.

Historically, there are three community colleges in the State of Washington currently undertaking the task of setting up a marine science technician program. However, they are awaiting governmental funds to build facilities. There are no such technology programs in the State of California, although the City of Los Angeles is planning one in conjunction with its community college system. Marin could be first!

Time Schedule and Analysis of Data

1. If the program is deemed worthy of consideration, and if the program were to be given consideration to be implemented the Fall Semester of 1967, then the following recommendations should be studied:
 - a. The author should be released from his Thursday afternoon laboratory assignment for the current spring semester to work on the project. The Thursday release time from lab to work on the technician proposal will be considered part of the author's teaching load.
 - b. The author will also utilize some Fridays and weekends for the survey during the coming semester. Some consideration should be given towards remuneration on these days.
 - c. Other biology staff members might also be part of the survey team, with the above factors being also part of their work time.
 - d. Employment of the author's service may also be possible during Easter vacation to survey the Southern California agencies.
2. The survey will continue throughout the summer, using afternoons and the latter part of the summer.
3. Analysis of Data: If the program is not to be initiated in Fall, 1967, and with starting times pushed back to spring or fall of 1968, then the author requests a reduced load of 12 units during Fall of 1968 to write up and organize the program.

Assessment of Existing Facilities and Curriculum

1. Facilities and Curriculum: College of Marin main campus buildings and present curriculum and College of Marin Bolinas Marine Station Laboratory.
2. Present curriculum that might be implemented into the technology programs:

a. Required courses for AA and AS degree:

English	5 units
Math	3
Health Ed.	2
Phys. Ed.	2
First Aid	2
U.S. History	3
Amer. Institutions	<u>3</u>
	20 required units

b. Existing courses available for a marine technology program:

Biol. 10 (Animal Biology)	3 units
Biol. 20 or 21A (Marine Biol. Cses)	3
Bus. 54 (Data Processing)	3
Bus. 61 or equiv. in H.S.(Typing)	2
Chem. 2A (Gen. Chem.)	5
ET 70 or 61 (Gen. Electronics)	3
Geol. 20 (Oceanology)	3
Geol. 56 (Elem. Mineralogy)	4
MMT 59 (Machine Tool Processes)	2
Physics 10 (Intro. to Physics)	<u>3</u>
	31 technological units

c. Additional marine science technology courses needed:

Marine Biology Technology	3 units
Oceanography Technology	3
General Biological Technology	<u>3</u>
	9 technological units

3. Proposed Marine Science Technology Diploma

- a. A Marine Technician graduates with an A.S. degree after completing 60 units. His major title would be: Marine Biology Technician, Oceanography Technician or General Biological Technician. He would fit a job analysis for immediate employment.
- b. Candidates for Baccalaureate degree at higher institutions may transfer as a sophomore, and with the likely prospect of employment as a student lab technician.

INSTRUCTIONAL DEVELOPMENT PROJECT - THE DEVELOPMENT OF AUDIO-VISUAL MATERIALS
FOR INSTRUCTION IN POLITICAL SCIENCE

Mr. Robert W. Essig in Charge - Social Science Department

Request is made of the IR & D Committee for funds to develop an instructional development project with modern media materials to convey some vital information to students participating in this course designed to enhance their understanding of comparative political systems.

This request is being made because one of the vital units of a comparative political systems course involves the quick dissemination and analysis of considerable quantitative data which deal with socio-economic and demographic trends in differing societies. This semester I am fortunate to have a student on the work-study program that is competent to accomplish this type of data extraction from materials that are available only at the University of California (Berkeley).

INSTRUCTIONAL DEVELOPMENT PROJECT - THE DEVELOPMENT OF MATERIALS TO STUDY
CONCEPTUAL MATURITY IN CHILDREN

Mr. Dikran J. Martin in Charge - Department of Behavioral Sciences

1. Request is made of this committee for funds to support an instructional development project in Psychology 52, Child Psychology.

2. Project Explanation

The hypothesis upon which this project is based is as follows: The child's drawing of any object will reveal the discriminations he has made about the object as belonging to a concept. Such discriminations are representative of the child's conceptual maturity. By conceptual maturity is meant the ability to form concepts of increasingly abstract character. Conceptual maturity in children requires the following accomplishments: 1) the ability to perceive, i.e., to discriminate likenesses and differences; 2) the ability to abstract, i.e., to classify objects according to such likenesses and differences; and 3) the ability to generalize, i.e., to assign an object newly experienced to a correct class, according to discriminated features, properties, or attributes. These three functions, taken together, comprise the process of concept formation. The instructional materials listed under point 4 below - itemized list of expenses to cover the cost of this project are the instruments required to conduct this instructional development project.

3. Rationale for this Project for Instruction in Child Psychology

One of the instructional goals in the child psychology course is to learn as much as possible about the child as an individual, and to apply that knowledge in understanding the present day functioning and future social-psychological development of children. Effective observation, the utilization of sound observation techniques, is one way to acquire an understanding of behavior in general. It is also a principal method through which the student can gain a deeper understanding of why particular children behave as they do. Through extensive observation over a period of time the student can begin to determine the child's characteristic pattern of response, his feelings and convictions, and his perception of the world about him. There are at present, numerous types of observational techniques, both formal and informal, which are applied to help the observer take notice of what children say and do

in a variety of situations. The method the student will use to help enhance his observation and understanding of children's behavior in this instructional development project is termed the Draw-a-Man Technique. The method focuses on the child's ability to discriminate the physical features of human beings by representing them in his own drawing. It is a non-verbal test of the child's conceptual maturity with a scoring system based on characteristic differences in the spontaneous drawings of children.

4. Itemized List of Materials for the Project

5 books, Children's Drawings as Measures of Intellectual Maturity,
by Dale B. Harris

10 packages, Test Booklets (Drawing and Scoring Forms)

20 manuals for Test Administration and Scoring

3 examiner's kit, containing manual, quality scale cards and test
booklet

UTILIZATION OF AN INNOVATIVE ART SLIDE SUCCESSION TECHNIQUE FOR INSTRUCTION
IN LIFE DRAWING AND PAINTING

Mr. Raymond Rice in Charge - Art Department

Over a period of two years I have used slides as subject material for drawing and painting in adult classes. The practice has greatly expanded instructional possibilities in these classes. However, the sources for suitable slides are few and there have been no planned teaching slides available.

Our facilities for projection have necessitated darkening the room to about half-light. Some means of brightening the image should be worked out. This can probably be done with existing equipment.

This proposal calls for producing two sets of slides, one of landscape and one of the female figure. Each slide will be useful for itself as a subject for painting and drawing. Each set is intended as a teaching aid; the viewer is informed of areas of concern in seeing the subject.

The purpose of including structured teaching is twofold. The slides will be a reference source for any teacher on a continuing basis. The thought is also that the slides offer enough basic material to be useful to less specialized teachers who may wish to use them as a part of a general art program.

The College of Marin Audio-visual Department has the necessary materials and equipment to produce and to project the proposed slide series. The attached sheet shows no cost figure. My suggestion now can only be that the Audio-visual Department agree to release material and equipment in sufficient quantities to complete the work proposed here.

I would work with Ernest Braun, a nationally known photographer of great versatility. His camera equipment and all his photographic resources would be available to the project. It is surely a great opportunity to get his skills at the same hourly fee as my own.

INSTRUCTIONAL DEVELOPMENT PROJECT - THE DEVELOPMENT OF MATERIALS TO INSTRUCT STUDENTS IN THE ESSENCE OF EXPERIMENTATION IN PSYCHOLOGY

Mr. Donald R. Folmlund in Charge - Department of Behavioral Sciences

1. Request is made of this committee for funds to support an instructional development project in Psychology 1B - Experimental Psychology.

2. Project Explanation

In order to teach experimental psychology, I feel that it is absolutely necessary to involve the students in research dealing with human and animal behavior. One aspect of human behavior that is extremely difficult to study, and yet is very worthy of research is that of creativity. Discussions invariably arise in psychology classes regarding creativity -- how it is measured, characteristics of creative individuals, variables which can foster creativity, etc. This semester, the experimental psychology class is attempting to design a test for creativity in hopes that some of these questions can be answered. In developing any type of psychological test, validation measures are needed. Therefore, in order to illustrate the principle of validation and to help the class in validating the scale they have developed, I am requesting funds of this committee to purchase the Welsh Figure Preference Test. This is a non-verbal test and is one of the better scales to measure creativity.

3. Itemized List of Materials for this Project

- 10 Welsh Figure Preference Test booklets
- 1 package of answer sheets
- 2 manuals

4. Method for Evaluating the Results of this Project

When the Welsh Figure Preference Test materials arrive, I plan to discuss this test with the experimental psychology students involved in this project in conjunction with a thorough discussion of psychological testing and the concepts of statistical reliability and validity. Following this, the students will administer the test to the same individuals who volunteered as subjects for the other test, after which a rank-order correlation will be computed in order to determine the validity of the test designed in class. As a way of determining the effectiveness of this procedure as an instructional project, I will conduct a poll of the class to determine the student's reaction, and will write up my evaluation of the project. I will submit a copy of this report to the committee.

ACADEMIC CONFERENCE REPORT - A REVIEW OF EDUCATIONAL PHILOSOPHY AND TEACHING
METHODOLOGY FOR CONTEMPORARY TRAINING IN REGISTERED NURSING

Miss Shirley Conklin in Charge - Nursing Education Department

Project Guidelines

1. Proposal theme

The R.N. faculty believes that an on-going evaluation of any college curriculum is imperative. Although this kind of evaluation is carried on throughout the school year, it is impossible to study any particular aspect in depth. Therefore, the nursing faculty wishes to have an academic conference away from the college where the total time will be utilized in studying already identified broad areas of the curriculum. Following the self-evaluation, we believe that it is highly desirable to bring in a resource person for consultation.

Proposed study for the first session is as follows:

- a. Review with possible revision of the philosophy and objectives of the nursing program. These were originally written by the coordinator of the program with no faculty participation because the California State Board of Nursing required that they be submitted before the program officially opened. It is our belief that philosophy and objectives should be developed by the total faculty group and reviewed periodically. Since individual course objectives should evolve from over-all program objectives, it is imperative that each faculty member thoroughly understand and be in agreement with the broad statement of philosophy of nursing as well as the goals of the program.
- b. Review of teaching methodology currently in use. Student-teacher evaluations will be available for review as well as evaluations submitted by Administration. Discussion will focus on student and administrative suggestions as well as individual teaching preferences of instructors.
- c. Design of evaluation tools for clinical experiences. The faculty has tried to devise an objective evaluation tool for the clinical aspect of the nursing program for over a year. Currently, the grade that a student receives in a nursing course is based mainly on her theory grades. Through the use of anecdotal notes, supervision, student-teacher conferences, etc., the teacher has decided on a subjective basis whether or not clinical performance has been satisfactory or unsatisfactory. The faculty is in agreement now that checklists must be prepared for every nursing technique indicating only those steps of procedure that are necessary for satisfactory performance. This should eliminate a great deal of the present subjectivity in evaluation. Beginning work on this will be done in small groups -- i.e., first year nursing

faculty working alone and second year nursing faculty working alone. It is apparent that this entire project cannot be completed in a session such as this, but a start will be made which may be worked on during the school year.

- d. Possible proposal for major curriculum changes will be considered. Specifically, the following will be discussed with thought toward making recommendations to the College Curriculum Committee as well as the California State Board of Nursing: Major revision of the Maternal and Child Nursing course. Possible revision may result in teaching Obstetrical Nursing as a separate entity and including Pediatric Nursing in the course in Physical and Mental Illness.
- e. A change in the English requirement. Currently our students are expected to fulfill an English requirement of English 1A and English 1B prior to graduation. Because this requirement is not common to other associate degree nursing programs, it has been suggested that the faculty study the advisability of this requirement.
- f. Consideration of including psychiatric nursing or mental health concepts throughout the entire program. Although we try to do this now, the real emphasis on psychiatric nursing has been in a "block" in the second year of the program.

Note: The Chairman of the Nursing Curriculum Committee, Martha Valliant, will prepare the agenda for the first session. This will be prepared based on the above broad study areas. It is assumed that during part of the three days, the entire group will be working together whereas at other times, the group will be broken up into first and second year faculty sessions.

2. Faculty participants

Shirley Conklin, Coordinator, R.N. Program
Martha Valliant, Instructor
Madeline Lowe, Instructor
Dorothy Wakefield, Instructor
Robin Schechter (out-going; leave of absence)
Faith Bartlett (resignation)
Christina Flynn (proposed new instructor)
Janine Frias (proposed new instructor)

3. Evaluation of project

The resource person, Dr. Shirley Chater, Professor, University of California Medical Center, will spend two days with the faculty to discuss our own self-evaluation as well as plans for the future. It is felt by the nursing faculty (and the resource person) that a consultant should not be invited into participation until the faculty alone has done the initial in-depth study of the existing curriculum. Following this project, evaluation will be on-going throughout the school year; hopefully, a yearly project such as the one proposed today can be continued.

Since the decisions which will evolve from the three day session this June are unknown, it is impossible to state implicitly our methods of evaluation of this project. However, we intend to record our major discussions, decisions, and recommendations. I believe that it is safe to state that our evaluation of the project will be done by:

- a. Individual evaluations by instructors of project method.
- b. Periodic recording (by curriculum committee minutes) of progress made based on decisions made during conference.
- c. Written reports of any proposed changes, including documented studies of the effectiveness or ineffectiveness of any proposed changes.

ACADEMIC CONFERENCE PROJECT - AN EXAMINATION OF CURRICULUM PLANNING, STUDENT ASSESSMENT, AND INTERDEPARTMENTAL RELATIONSHIPS BETWEEN THE ENGLISH DEPARTMENT AND THE COMMUNICATIONS DEPARTMENT

Miss Maryjane Dunstan in Charge - Communications Department

The Communications Department would like to organize an academic conference.

From the Department's continuous appraisal of the effect of its program, two areas of concern emerge for study: 1) curriculum planning and student assessment; 2) interdepartmental relationships. The objectives of the conference, therefore, are as follows:

1. To explore with participants new methods of programming students into Communications courses, new and more effective methods of utilizing audio-visual materials, ways of obtaining information and follow-up studies on students.
2. To explore with participants new avenues which would open the possibility of better understanding between the English Department and the Communications Department.

To achieve the objectives of the conference, the members of the Department have invited the following people to participate:

Student Personnel
Irwin Diamond
Margaret Greene

Audio-visual
Al Heppe

English
Howard Blair (or) James Heig (or) Mary Hedin

Data Processing
Don Griffin

Evening College
Lou Herkenhoff

The following procedures will be used to evaluate the conference:

1. Each participant will be asked to submit an assessment of the two-day conference.
2. Topics covered and any proposed changes in the program resulting from the conference will be reported to the IR & D Committee.

The Communications Department would like to commend the IR & D Committee for developing the idea of the academic conference. This innovation is one of the most potentially constructive ideas in the history of the College in that it permits a department to explore with others, in a non-academic atmosphere, problems in depth which are only superficially touched upon in the rush of the day-to-day pressures of academic living.

The Conference Evaluation

What the committee, I suppose, would be most concerned with are the specific rather than the abstract results of such a conference. This is not an easy thing to do because in many ways the abstract results one comes away with are, perhaps, the most valuable. However, some specific results can be documented.

One of the purposes of the conference was to explore with participants new methods of programming students into communications courses. We presented to the group and discussed with them a method of programming students into communications courses which has been put into effect this semester. (This method was described in a report to you on September 27.) Dean Diamond and Dr. Greene, representing the Counseling Department, although agreeing in principle with the objectives of the new way of programming, felt that to bring students back to the campus for an extra test was not good for the students. We agreed after much discussion to test the students the first week of class and to reshuffle them into writing or reading classes. In a previous report to you, I mentioned the inefficiency and headaches of such a procedure.

A meeting with the Counseling Department about this problem has been arranged

The second subject for discussion was to explore new and more effective methods of utilizing audio-visual materials. Mr. Heppe was particularly helpful in this regard and, as a result, consideration for purchases of more equipment and one specific project resulted. (See enclosure for Communications 51A term project.) Further, a member of the Communications staff has presented and has had approved a request for released time to work on a project which grew out of discussions at the Academic Retreat.

The third objective of the conference was to discuss ways of obtaining information and follow-up studies on students. As a direct result of discussion with Mr. Griffin and others, Data Processing has arranged to do follow-up studies on students who have taken communications courses,

using a random sampling technique. We intend to use this information to help us develop curriculum and to evaluate content in the courses we offer.

A major objective of the conference was to explore with participants new avenues which would open the possibility of better understanding between the English Department and the Communications Department. As you are well aware, no member of the English Department attended the conference.

It seemed to us that the major area of concern between the English Department and the Communications Department centers around:

1. Whether or not the Communications Department should be allowed to offer transfer courses to San Francisco State and
2. Whether or not the Subject A course really fulfills the needs of students.

At our conference we discussed with other participants the following questions:

1. Who decides whether a department can or cannot offer a transfer course?
2. Why should there be only one way to fulfill a freshman composition course at the College of Marin when there are alternatives offered at the state colleges and other four-year institutions?
3. Why were the two departments separated?
4. Why can't some members of the English Department and the Communication Department communicate with each other?
5. Is there something peculiar about the institution or peculiar about the individual department members that mitigate against effective communication?
6. Are our objectives the same or different?
7. Is our philosophy of education the same or different?
8. Why do the two departments differ on the matter of standards?

We felt that after clarifying our own position on these questions that nothing fruitful could result unless we did meet and discuss with the English Department the questions posed above. Therefore, following the conference, a meeting was arranged with Mr. Weiss, Miss Dunstan and Dr. Herkenhoff in which we discussed some of these problems.

A number of meetings took place during the summer session; and although perhaps the two basic questions posed have not been resolved, dialogue is going on and some changes are in the process of taking place. One suggestion, as a result of the meetings during the summer, was that the English Department and the Communications Department join together as one department. However, this did not seem acceptable to members of the Communications Department at this time.

Another departure from regulations during the summer was that Mr. Weiss did not require communications students to take the Subject A exam for placement into Subject A courses. Rather, he took the recommendation of the instructor.

Although the two departments have not met, Mr. Weiss, Dr. Herkenhoff, and I continue to meet to discuss common problems, and hopefully some of the questions posed at the Academic Retreat will be resolved during the coming year.

Enclosed with this report are:

1. Individual assessments of the retreat
2. An explanation of a Communications 51A term project

As Chairman of the Communications Department, I felt that the retreat was one of the most constructive meetings this department has ever had. An added dividend was a two-hour session with the Nursing group which enabled both groups to understand each other's programs and aspirations to a much greater extent than ever would have been possible on campus.

RESEARCH AND DEVELOPMENT TIME REQUEST - AN INVESTIGATION OF METHODS AND MATERIALS THAT MIGHT BE APPLICABLE TO CONTEMPORARY INSTRUCTION IN THE COMMUNICATIONS DEPARTMENT

Miss Maryjane Dunstan in Charge - Communications Department

In this report I shall attempt to evaluate the use of the released time granted me for the Spring Semester 1967. In my original proposal I planned to use the time in the following ways:

1. To explore in conjunction with the Counseling Department innovative ways of programming students with communication deficiencies.
2. To consult with specialists at other junior colleges, state colleges and universities, and at such facilities as the Job Corp Training Center in the East Bay.
3. To investigate materials and apparatus which might be useful for a communications laboratory.
4. To write my own materials, particularly to develop materials for use with the overhead projector.

Let me speak to each of the four points above.

1. A new way of programming students with communication deficiencies was put into operation in the Fall Semester 1967. In effect, what we have done is to divide the Communications 50 course into two courses; one, a course in writing, and the other, a course in reading. The student is programmed into either a reading course or a writing course on the

basis of a reading skills test given during the first week of the semester. If his reading ability is below the twelfth grade level, he is required to take a course in reading. If he scores above the twelfth grade, he takes the writing course.

At least one problem in mechanics remains before such programming can be said to be running smoothly. It was suggested by the Communications Department that the reading skills test be given before a student made out his program. This meant that students whose scores on the ACT showed that they were Communications students would be required to return for the reading skills test. The Counseling Department felt that such a procedure was psychologically demoralizing for the student and, therefore, rejected the idea.

As a result, the Communications Department spent the first week and a half of its class time testing and reshuffling students. In our opinion, this was more psychologically demoralizing than the method we had suggested. The two departments are in the process of working out a new arrangement before the beginning of the spring semester. Perhaps I should point out that this experiment in programming is just an experiment. We intend to look carefully at the achievement of students in both the Communications 50 and the reading classes in an attempt to evaluate the desirability of such a programming procedure.

2. The second objective of my request for released time was to consult with specialists at other junior colleges and at other facilities throughout the state. This I did not do at all simply because I never found any time to do so.
3. Much of my time was spent looking at new materials and apparatus useful for a communications laboratory. This was time well spent. Last year we had only two programs for use with the Craig Reader. This year we have added eight new programs to our laboratory. These include three new vocabulary programs and five new reading programs, ranging from fifth grade reading level through college.
4. A series of transparencies for use with the overhead projector was developed. The series included 1) a unit on the short story to be used in conjunction with A Search for Awareness, a text used in Communications 50, 2) a unit on sentence fragments, 3) a unit on run-on sentences, and 4) 48 transparencies of individual student's writing to be used as demonstration models in Communications 50 classes.

There is one further comment I would like to make about released time. It was very difficult for me as department chairman to use all of my released time for the project described above. At the beginning of the semester I found the time adequate to the fulfillment of this project; but as the semester rolled on, I found myself spending proportionately more and more of my time on department business and less time on research and development.

Faculty Projects Submitted to the IR & D Committee: Academic Year 1967-1968

ACADEMIC CONFERENCE PROJECT - AN EVALUATION OF COUNSELING SERVICES AND THEIR EFFECTIVENESS

Mr. David A. Dunlap in Charge - Counseling Department

Theme

The central theme of this conference is the evaluation of counseling services. Although the counseling staff is continually evaluating itself, usually limitations of time and work restrictions prevent any in-depth probing of our effectiveness. The purpose of the conference is to provide the time and the environment in which the counseling staff may evaluate itself and its services to students and faculty. We wish to look for new methods and procedures to help us better serve the total college community.

Specifically, we plan, in detail, to look at:

1. Counselor effectiveness as seen by students.
2. Counselor assignments and the role of the chairman of the department.
3. Group processes; purpose, problems, techniques, and new directions.
4. Communication among counselors, with faculty, administrators, and staff.

Participants

Armand Cello
Irwin Diamond
Dave Dunlap
John Gillin
Wanda Glass
Margaret Greene
Charles Herndon
George Duncan

Sam LeCount
Norma O'Hair
Marlin Olsen
William Peters
Fielding Reese
Arlene Start
Pauline Toschi
Faculty Representatives

Conference evaluation

Hopefully, this conference will produce results that will be readily discernible by the total college community. However, each participant will be asked for a written evaluation of the conference. These will then be summarized and given to the IR & D Committee.

A Report to the IR & D Committee on the Academic Conference of the Counseling Department

The White Memorial Retreat is an excellent setting for conferences with the atmosphere being conducive to group thinking. The unlimited time with no interruptions allowed us to confront various topics and problems which were as follows:

1. Discussion of the need to understand students and pressures upon them in order to be a more effective counselor. Counselors are in agreement that today's students are extremely independent, this being reflected in their relationships with one another and particularly with adults.
2. Discussion of counselor load, the result of this discussion being a re-evaluation of assignment of counselees who are special students. Additionally, an analysis of counselor responsibilities is being undertaken in order to eliminate those functions not of a counseling nature.
3. Review and revision of the Department Chairman's responsibilities, which are as follows:
 - a. To coordinate the programming phase of counseling which includes arrangements with high schools for visits by counselors, scheduling of appointments for students, and coordinating clerical procedures for appointments.
 - b. To review the number of counselees assigned to counselors and, with their consent, make changes to equalize loads.
 - c. To coordinate hours of duty for counselors to insure adequate staffing of the office.
 - d. To provide information to counselors during registration.
 - e. With the Dean of Students, to maintain liaison with the college departments.
 - f. To assist counselors to make the best use of occupational and educational information.
 - g. To coordinate the in-service training program for counselors.
 - h. To coordinate clerical help to provide services to counselors.
 - i. To keep current the counselor's handbook.
 - j. Other duties as assigned by the Dean of Students or recommended.
4. Discussion of the duties of the receptionist and how she might be more helpful. The suggestion was made that she answer all incoming calls so as not to interrupt a counseling session. It was also suggested that she make certain that she knows who is in the waiting room.
5. Discussion of Psychology 58C in which, starting in the fall of 1968, all entering high school graduates with less than a "C" average will be required to enroll. While recognizing that each counselor or group leader has his own style, certain basic objectives will work as guidelines. The objectives are:

- a. To assist students in making a successful transition from high school to college.
- b. To assist students to overcome deficiencies.
- c. To change attitudes towards learning.
- d. To assist students to identify vocational directions.
- e. To help students gain insight into why students have not used their potential.
- f. To become familiar with college programs.
- g. To become involved in class and college activities.

Since certain details must be worked out, a committee of counselors will work out recommendations for enrollment, grading, scheduling, and attendance.

- 6. Discussion of the evaluation of counselors by counselees. Due to the malfunction of the data processing machines, complete results were not obtainable although there was some general data available. The raw data has been resubmitted with data forthcoming.
- 7. Discussion of methods for improving relations between the Counseling Department and the faculty. It was decided that a committee of counselors develop a questionnaire which would include suggestions submitted by all the counselors as well as those suggestions mentioned at the conference.
- 8. Discussion of various effective counseling techniques such as the four services, the Counseling Department, and the faculty on students with acute health problems.

Suggestions for future conferences:

- 1. A more organized, structured agenda with more pre-conference planning as to goals and objectives of the conference.
- 2. Selection of a conference chairman or moderator whose function would be to keep the meeting moving and eliminate unnecessary repetition and rehashing.
- 3. Pre-conference consensus on questions regarding structure, chairmanship, sensitivity exploration and T group work.
- 4. Possibility of a central conference theme to be used as a general guideline (i.e., current counseling practices or counseling philosophy).
- 5. Brainstorming sessions for discussing new and effective approaches to counseling.

6. Addition of an outside person for resource or T-group work.
7. Addition of faculty members and students to the conference.

ACADEMIC CONFERENCE PROJECT - A BEHAVIORAL SCIENCE DEPARTMENT CONFERENCE
ON CURRICULUM EVALUATION

Dr. William H. Scalapino, Mr. Donald R. Holmlund in Charge - Department
of Behavioral Sciences

Theme

The central theme of this conference will be to discuss and determine the role of the Behavioral Science Department at the College of Marin. As a necessary part of this determination, we will have to evaluate the current offerings of the department and discuss what changes might be needed in the curriculum in the future. Another area which will be discussed is the role of the departmental faculty members in relationship to other departments and to the college at large. Finally, we hope to arrive at a set of departmental goals, both immediate and long range goals. The purpose of the conference is to provide the time and the environment in which the department may explore these questions in depth.

Evaluation of proposed conference

Time will be spent at the end of the day in an attempt to evaluate specifically the conference. Additionally, there will be a set of documents which will be the result of the discussion periods.

Proposed schedule

9:00 to Noon	Role of the department, needs of students, role of departmental faculty members
Noon to 2:00	Lunch break
2:00 to 5:00	Immediate and long range goals of the department
5:00 to 8:00	Dinner break and writing up proposals
8:00 to 9:00	Evaluation of conference

A Report to the IR & D Committee on the Academic Conference of the Department of Behavioral Sciences

The Behavioral Science Department held an all day academic conference on October 25, 1967 at the Ralston White Memorial Retreat in Mill Valley, California. The participants (listed below) included all of the full time instructors in the department and three evening instructors. Each participant was asked to evaluate the conference and everyone deemed the conference a complete success. A number of issues were discussed and as a direct result of this conference, many proposals (including those for additional courses or course changes) have been submitted to the appropriate college committees or councils. A document which outlines the areas discussed at the conference and the recommendations which have been made is attached to this sheet.

Participants

Carter Hanner
Don Holmlund
Roberta Lenkeit
Dikran Martin
Bob Pilgrim

Karen Riley
Bill Scalapino
Mike Trevitt
Jack Wahl

The Behavioral Science Department held an academic conference on October 25, 1967. Four main areas were discussed in great detail and many specific recommendations were made. The four general areas are listed below along with the proposals which have been made. It is hoped that such a conference will be an annual event in order to continually question and discuss the role of the Behavioral Science Department at the College of Marin.

Departmental Goals

The members of the department are in agreement that the primary goal is to meet more efficiently the needs of the students in the department. In order to do this, we must move away from rigid requirements which might work against the student. Many students, for example, could profit from individual study. More flexibility could be offered to the student by revising the current major requirements. A further way which we might offer students more effective service is to provide departmental advisors to students seeking help in academic advising.

Another goal of the department is to attract more students. The department recognizes that one area in which more courses can be offered is that of non-transfer courses. Many students have not been exposed to behavioral science courses because, with only three exceptions, the courses are designed for transfer students. A greater attempt must also be made to attract minority group members to behavioral science courses.

A third goal of the department is to place much greater emphasis on student responsibility. Too often the junior college student has been treated like a grade school student. Members of the department feel that there are too many rules and regulations and counseling procedures which actually hinder the student from making independent decisions and accepting the responsibility for them.

Another goal is to stress the interdisciplinary instructional approach. Although each discipline studies behavior from a slightly different point of view, more attempts at integration must be made. The department has moved in this direction and will continue to do so.

Departmental Curriculum

In order to implement the goals of the department, the curriculum must obviously be revised. A number of new courses are being proposed, and changes are being made in other courses. The proposed new courses include a course for independent study and several courses which are specifically designed for non-transfer students.

The members of the department agree that the courses being offered by counselors (i.e., reading, orientation to college) definitely do not belong as part of the curriculum of the behavioral science department. It is therefore recommended that these be dropped from the psychology section of the catalog.

Another curriculum change recommended by the department is the introduction of courses for credit which will explore current relevant issues and which might be offered in less than a semester during evening hours or on weekends.

Departmental Role in the Community

As instructors trained in the behavioral sciences, the members of the department feel they can play an even larger role in the community than they do at the present time. One way to accomplish this is to sponsor programs and conferences with various people in the area as invited guests. Another way to meet various community needs is to offer courses in the evening which will not necessarily be of a semester or quarter in length, and yet will investigate various specific issues. A one unit six-week seminar on racial relations is offered as an example of this innovation in curriculum.

The department also feels that it can play an expanded role in the Bay Area. Very seldom have junior college instructors in the behavioral sciences been afforded the opportunity to get together and explore common problems. The department intends to sponsor such a conference during the spring semester in 1968.

Departmental Position on Specific College Policies

The department wishes to actively participate in the policy making process at the College of Marin. Each member of the department expects to be consulted on matters which have been forwarded to the department chairman for an opinion or advice. Such matters will be discussed and voted on at regularly scheduled department meetings. Although each issue must and will be decided on its own merits, the Behavioral Science Department feels that greater flexibility is needed in most college policies.

Specific Recommendations - to be forwarded to appropriate college committees for action.

1. Schedule a joint meeting with the counselors as soon as possible at which time several recommendations will be made:
 - a. Abolish add and drop slips.
 - b. Implement a system where departmental faculty will advise students re: recommended and required courses.
 - c. The courses taught by counselors will no longer be listed as psychology courses.

- d. Behavioral Science courses will not add students above recommended limits.
2. Proposed new courses
 - a. Behavioral Science 49 - Individual Study
 - b. Psychology 51 - Group Processes
 - c. Sociology 30 - Social Determinants of Personality
 - d. Sociology 53 - Applied Sociology
 - e. Anthropology 53 - Applied Anthropology
 - f. Behavioral Science 11 (?) - credit courses which can be offered in less than a semester according to need
3. Revise the catalog. In some cases, this will involve changes in wording. In other cases, the changes will be in terms of recommended courses for certain "majors". In several cases, there will be minor course changes.
4. Move away from specialized majors to provide more flexibility to the student.
5. A move to the quarter system beginning in the fall semester, 1968.
6. Abolish midterm grades.
7. Allow individual instructors to set their own policy on smoking in class.
8. Extend the date for catalog changes from November 15 to January 15.
9. Sponsor a conference for bay area behavioral science instructors.
10. Broaden the pass-fail policy to allow the student to either pass or drop a course until the completion of the course.

RESEARCH AND DEVELOPMENT TIME REQUEST TO INCORPORATE VIDEOTAPE APPARATUS IN
CONTEMPORARY COMMUNICATIONS INSTRUCTION

Mr. David Newby in Charge - Communications Department

Problems and Objectives

1. I wish to develop and produce a videotape which will alleviate a specific instructional problem in our department. Our students in Reading X frequently lose valuable time because they do not understand how to use the Craig Reading Machine and the reading programs properly. Errors are

particularly costly in this type of program and can, in fact, set up additional barriers to learning. It is difficult to present instruction about the machine to 25 students because of its size and the space in the Reading Lab. A clear, precise videotape would, hopefully, make our time more effective and efficient. An added benefit is the ease with which one can repeat the instruction for students who need it, or for students who missed the presentation in class.

2. For many of our students there is a wide gap between their ease with non-verbal experience and their difficulty with verbal experience. One of our problems is how to use non-verbal material (film and photographs) to help them increase their verbal skills (reading, writing, and talking). We feel the gap can be narrowed more effectively with audio-visual material designed specifically for our students and our instructors. There is already material on the market, but much of it fails because it is remote in time and place as well as being overstated to the point of closing off discussion. I wish to develop and produce one or two tapes which would encourage (even demand) audience participation. For example, a theme commonly discussed in Com 50 is the relationship between parents and children. I believe a problem solving tape could be produced on this theme which demands completion, or solution, by the student. A conflict (smoking and drinking? purchase of a car? sex?) could be presented as an open-ended situation in which the student would need to understand the logical development of the conflict in order to complete it, probably as a written assignment.
3. Finally, I would hope to develop material designed to aid the teaching of composition. We usually begin with the problem of perception and observation with our students. When writing a descriptive paragraph, they are asked to submit a photograph of what they are describing. A videotape showing this process of seeing and writing would be a valuable aid. The tape would present a familiar campus scene and a descriptive paragraph being written by one of our own students. We feel this would be more involving than some of the rather general guidelines to composition produced elsewhere in the country. The total process of writing could be incorporated: notes, rough drafts, and revisions. Many of our students have no idea of the complete process and need to see someone actually complete an assignment successfully.

Specifics

1. Release time is essential to the proposal because of the time it takes to research materials, write the scripts, and produce the final tape. (I have been told that it takes at least an hour for each minute of the final tape.)
2. Three units of release time in the Spring would be a reasonable amount, although I cannot honestly predict how many tapes I will be able to produce. This time has been cleared by the department chairman.

3. I have consulted with related services on campus and Mr. Heppe assures me that existing facilities will be adequate and available and that no financing would be necessary. My most important concern, then, is for full and easy access to the services.
4. Two questions will have to be answered in evaluating this proposal: 1) Did I produce any tapes, and if not, why? 2) Are the tapes effective? The last question might be best answered by developing two questionnaires, one for the members of the department who use the tapes, and one for the students who view them. This evaluation would probably occur in the Fall Semester of 1968.

DEVELOPMENT OF THE "OPEN LABORATORY APPROACH" IN PHYSICAL SCIENCE INSTRUCTION

Messrs. Donald W. Martin and Robert L. Petersen in Charge - Physics Department

I. Project Goal

The primary goal of this research proposal is to test for one year a new approach in the teaching of physics, an approach possibly applicable to all physics courses. The main characteristics of this new approach are greater flexibility in instructional techniques, a closer student-instructor relationship, and more effective utilization of laboratory equipment. If the "Open Lab Approach" proves feasible, the result will be improved instruction with substantial savings over a long period.

II. Requirements for 1967-68 school year

A. Schedule change

1. Present Physics 4A, B, C schedule - 3 hours/week lecture, 3 hours/week lab
2. Proposed Physics 4A, B, C schedule - 2 hours/week lecture, 3 hours/week lab/discussion 2 hours/week open lab - no instructor
3. Program to run Fall 1967 and Spring 1968

B. Unit load

1. Teacher - no change
2. Student - no change

C. Expenses

1. Facilities - none

2. Lab attendant - 16 hours/week at about \$3.00/hour (there are several possibilities to be explored here for cutting costs).

III. Discussion outline

A. Description of class meetings

1. Lecture - A significant change is forecast for the lecture period. Emphasis would be shifted from a straight lecture format of information transfer to a period offering a variety of functions. These functions include a) summarizing and unifying text, discussion and laboratory experiences; b) audio-visual presentation, c) demonstrations and special illustrations suitable for large audiences, d) examinations. The lecture period would accommodate all students enrolled in the course, as before.
2. Lab/discussion - This three hour section meeting is the most challenging and innovating part of the program. The main features are: great flexibility in scheduling of activities, close student-instructor relationships and an enhanced learning environment centered on discussion, demonstration, experimentation, individual and group problem solving, and group projects. Naturally, the number of activities and the time spent at each one would vary from week to week.
3. Open lab - Students would conduct experiments during this period when no instructor is present. A laboratory attendant would be responsible for the area and perhaps check out equipment. The lab would be open about 16 hours per week and would handle about 50 students or 100 student hours. Experimental techniques and directions would be discussed in section meetings. (Note: in the future, prerecorded tapes could be available to give explicit laboratory instructions on the experiments as well as step by step operating procedures for many laboratory instruments.)

B. Anticipated results

1. Elevated motivation of students
 - a. Variety in lecture material and in lab/discussion period.
 - b. Continuous summarizing of lab, text and discussion material keeps student on top of overall picture - eliminates the "snow job".
 - c. Interpersonal dynamics of group discussion during lab-discussion is challenging and invigorating.
 - d. Close student-instructor relationship during lab/discussion.

- e. More responsibility given to student in open lab.
- f. Ongoing "Hawthorne" effect - new approach.
- g. Students can spend more time with laboratory apparatus.
- h. Students feel less time is wasted -- for example, it is not necessary to discuss homework problems in lecture when only one-fifth of the class is interested. During lab/discussion, students interested in a particular problem can gather to discuss it, while the rest of the class pursue other activities.
- i. Students can work at an individual pace during the open lab. This also allows for "open-ended" experiments which allow more initiative which increases learning efficiency. No longer is the instructor teaching to the norm.

2. Advanced instructional techniques

- a. Close connection between lab, text and lecture material.
- b. More individual help to students on problems during lab/discussion.
- c. More individual help on lab work through the use of tapes, films and consultation.
- d. Better faculty morale through more interpersonal contacts, more challenging teaching methods, and a comfortable feeling that the dispensable functions of teaching are dispensed with.
- e. With an "open" lab, students can spend more time on projects since he can come in at any time.
- f. Flexibility during lab/discussion period to concentrate on a teaching method that best fits the situation -- for example, in electricity and magnetism, twenty minutes could be spent developing theory of RC time constants. During the next twenty minutes students would verify the theory by experiment.

3. Substantial savings

Most of the following discussion assumes that all physics courses adopt the open lab approach. A possible weekly schedule might look like this:

Physics 2 series	2 hours lecture
(Req'd for pre-med students, etc.)	3 hours lab/discussion
	2 hours open lab

Physics 4 series (Engineering majors)	2 hours lecture 3 hours lab/discussion 2 hours open lab
Physics 10 (Liberal Arts Majors)	1 hour lab/discussion 2 hours lecture 1 hour open lab ¹
Physics 11 (proposed) (Voc-tech., Prin. of Instrumentation)	3 hours lab/discussion 3 hours open lab

- a. Equipment savings of more than \$70,000 by not duplicating expensive laboratory apparatus. Presently when buying apparatus for student experimentation, anywhere from one to ten complete set-ups is purchased. Ten set-ups would be ideal, then each group (2 per group) of students could do the same experiment. With the "open lab" approach only one to three set-ups would be necessary. Over the next 30 years it is conservatively estimated that this approach will save the college \$70,000. This saving more than offsets the cost of additional space requirements due to more student hours in lab.
- b. Sharing of facilities with other departments. For example, Biology may want to use our radiation detection equipment. Since the lab is open and if the apparatus is not being used, then arrangements can be made. (Especially useful with student projects in Biology or Chemistry.)
- c. Reduced teacher-unit load. It is anticipated that three years after initiating the "open lab" approach, teacher-unit loads would be reduced by 1 unit per section meeting in Physics 2 and Physics 4 courses. By 1972, this would amount to 16 units per year less than present. This saving would more than pay for a lab attendant especially if work-study funds could be utilized.

C. Anticipated problems

This list is being started for two reasons. First, others may foresee problems which should be considered and second, hopefully, some helpful ideas may be forthcoming.

1. Open lab

¹The Physics 10 lab would primarily involve experimenting with enclosed boxes of apparatus such as those recently tried at Berkeley. The student does not set up the apparatus, he just turns knobs, pushes buttons, etc., to compile data.

- a. Where do you get responsible attendants?
- b. How do you prevent the lab from becoming an "in" place where students gather to get out of the rain, or study, or . . . ?
- c. How do you prevent dry labbing, where students copy lab results from others?
- d. If only a few experimental set-ups are available, how do you schedule apparatus use?
- e. Safety. For example, students unfamiliar with equipment may damage it since they have no one to refer to about operation.

ACADEMIC CONFERENCE REPORT - A REVIEW OF EDUCATIONAL PHILOSOPHY AND TEACHING METHODOLOGY FOR CONTEMPORARY TRAINING IN REGISTERED NURSING, PART 2

Miss Shirley Conklin in Charge - Nursing Education Department

Participants:

Faith Bartlett
Shirley Conklin
Carol Duggan
Christina Flynn
Dorothy Wakefield

Janine Frias
Madeline Lowe
Robin Schechter
Martha Valliant

Monday, June 12, 1967

Presiding: M. Valliant, Chairman, Nursing Curriculum Committee

9:00 a.m. session

M. Valliant presented the proposed agenda for the three day conference.

C. Duggan requested the inclusion of time for the development of an evaluation tool for the clinical laboratory. M. Lowe suggested that the faculty explore the curricula problems as described in the agenda and the evaluation tool may be more easily developed. D. Wakefield suggested it may be more expedient to have a sub-committee of a small number to begin the initial development of the evaluation and then involve the entire faculty.

The faculty reviewed the "Philosophy, Purpose and Objectives of the Program in Nursing" and after much discussion, made several revisions. The discussion dealt primarily with redefining nursing and clarifying the goals and objectives of the R.N. program at the College of Marin. See Appendix A.

1:00 p.m. session -- not taped. Curriculum problems identified; reviewed in 8:00 p.m. session.

3:30 p.m. session

Problems identified by First Year Faculty:

1. Lack of coordination of content and clinical experience in Maternal-Child nursing in first year.
2. Integration of psychiatric concepts.
3. Movement of Pediatrics to Nursing 62A and B.
4. Clinical evaluation of students.
5. Overcrowding of Maternal-Child clinical areas and limited experience in first year.
6. Development and meeting of objectives of clinical experience.
7. Adequate experience in Isolation technique; students have most of their difficulty with the "how to."
8. Lack of clinical experience for Freshmen students at Ross Hospital.
9. Integration of Fundamentals and M.C.H. into one course.
10. Difficulty meeting objectives in present clinical facilities.
11. Locker room facilities and parking at Ross Hospital.

Suggestions offered:

1. First-year students at Ross Hospital; Second-year students at Marin General Hospital. First-year students may need some clinical experience at Marin during their second semester.
2. Broaden clinical objectives.
3. Development of broad clinical objectives which would permit students to function in varying departments (i.e., pediatrics, labor room, delivery room and the medical-surgical clinical units) at the same time.
4. Stress principles of isolation in class and laboratory and each instructor give a student individual assistance in the clinical area as the experience arises.
5. M. Lowe and C. Duggan suggested contacting Miss Dunshee and Mr. Angelini regarding locker room and parking facilities.

Discussion:

1. Differences in Ross and Marin Hospitals in nursing philosophy, overall organization, atmosphere, etc.

2. Assignment of second-year students to clinical areas -- D. Wakefield suggested a "proposal for assignment of students" which will be reviewed by second-year faculty.
3. Problems of acceptance of A.A. students at Ross, availability of support from nursing administration, staff problems, meetings with head nurse group, lack of policy regarding nursing procedures, unusual occurrence and medications, and limitation of nursing responsibility.

8:00 p.m. session

Discussion:

1. Competencies of first-year students
 - a. Adequate in organization and hygienic care
 - b. Knowledge should be good
 - c. Medical asepsis excluding strict isolation
 - d. Charting and observation skills are variable but fairly good
 - e. General administration of medications
 - f. Diets, intake and output
 - g. Nursing care plans -- emphasis on why of nursing action
 - h. Inhalation therapy
2. Students requiring special help at the beginning of second year.
3. Students who are low in theory at end of first year.
4. General needs of first-year students
 - a. More assistance with isolation technique
 - b. Evaluation of observed data
 - c. Catheterization
 - d. Aseptic technique
 - e. Nasopharyngeal suction
 - f. Drawing up medications from ampule and mixing medications
 - g. Preoperative routine, especially medication
 - h. Subcutaneous injections

- i. Intravenous therapy
- j. O₂ therapy
- k. NG tube insertion

Tuesday, June 13, 1967

9:00 a.m. session

The first and second year faculties met separately to discuss plans for Fall 1967, implementation of aforementioned content, changes in course, house-keeping, problems anticipated and other pertinent data.

2:00 p.m. session

Discussion:

- 1. Second-Year Faculty report
 - a. Revised course objectives
 - b. Changed order of presentation of Content
 - c. Development of broad problem areas for Content Presentation
 - 1. Intake and transportation of oxygen problems
 - 2. Nutritional, metabolic, elimination problems
 - 3. Format for psychiatric nursing -- stress, anxiety
 - 4. Problems of mobility
 - 5. Problems of regulation
 - d. Inclusion of sick child in Nursing 62A and B
 - e. Use of clinical facility
 - f. Assignment of students in clinical area
 - 1. Avoid overlapping of students which has increased orientation time, created difficulty with group conferences.
 - 2. Students will be assigned to an instructor who can select experiences from a broad area in the hospital; in special areas such as Heart Unit the students will be assigned for a consecutive experience; also instructors will meet daily to coordinate assignments. M. Lowe will be able to use entire Med.-Surg. to select experiences for students.

3. Post-conference will be a combined conference of all students and instructors. Pre-conferences will be held separately but clinical objective will be the same.
4. Freedom of instructor to move students as needed to accomplish objectives.
5. Conference room space for large group.
6. Inclusion of recommendations for placement of students by first-year faculty.

8:00 p.m. session

Discussion:

2. First-Year Faculty report

- a. Formulated sequence of Course Content and types of experience
 1. Observations along with process recording
 - a. Role of A.A. nurse
 - b. Communication skills -- non-directive vs. directive communication
 2. Vital signs
 3. Hygiene
 - a. Will conduct an experiment with bath and bedmaking with one group of students having a demonstration and others who will not have one. All students will have the lecture on principles of hygiene prior to experiment.
- b. S. Conklin discussed the use of Terra Linda Hospital as a future clinical facility, the requirement of English 1A and B, and change in unit value of courses requiring State Board approval.
- c. There was discussion of the development of Broad Areas of Course Content for First and Second Year using Beland and Matheney.

Wednesday, June 14, 1967

9:00 a.m. session

A meeting was held with the English Department to discuss mutual problems.

Discussion:

1. The necessity for English 1A and 1B as required courses. The purpose of having the students take these courses is to increase their writing and speaking competency.
2. Remedial laboratory available for students having reading, spelling and other verbal skill problems. The students need not take a remedial course.
3. Nursing students expected to do some creative writing as fulfillment of requirements for some of the nursing courses.
4. Description of various nursing students who have had English 1A and 1B. The question being asked, "Are the students getting from the course what is expected?"
5. Explanation of written assignments expected of nursing students -- creative, technical, factual or as seen, etc.
6. The English faculty assisted nursing faculty in the identification of specific student problems who might benefit from the laboratory assistance or by other methods.
7. Recommendations were made that regulations relating to English requirements are made flexible enough that the nursing faculty may change its requirements, make an agreement that some of the students who only qualify for Subject A may enter the program, change to the English requirements for A.A. degree and/or graduation, and explore other available English courses which the students may take (i.e., Technical Writing, Mass Media).

11:00 a.m. session

Suggestions were offered to have faculty reconsider what English 1A and 1B does for our students. Are these expectations realistic for the A.D. program? Will these expectations prohibit students who could perform well in the A.D. program? Are these expectations more like B.S. requirements rather than A.D. requirements?

It was suggested that some students who qualify for Subject A be admitted to the program in September 1967. S. Conklin will find out whether students taking Subject A must take English 1A and 1B.

S. Conklin reported on the seminar content for second-year students. The students graduating expressed a need for help in making the transition from student to graduate and taking on the professional role. S. Conklin plans to obtain A.D. graduate evaluations at 3 and 12 months and in five years.

There was considerable discussion about use of first names between faculty and students.

M. Valliant suggested the nursing faculty meet with the Science Department soon.

1:00 p.m. session

M. Valliant reviewed the highlights of the conference which are:

- Revision of Objectives and Philosophy of School
- Identification of Curricula problems
- Use of Clinical Areas
- Development of Broad Areas of Course Content from First to Second Year
- Discussion of students going into Second Year
- Clinical Objectives
- Integration of Psychiatric Concepts
- Coordination of Course Content by Second Year Faculty when the instructors' schedule became so heavy; fewer opportunities to meet together

D. Wakefield suggested that the total faculty plan a time when the implementation of curriculum changes can be done. C. Flynn suggested that several planning meetings during the summer would be best if the faculty were willing. M. Lowe and J. Frias agreed to meet and begin planning the progression of content and learning expected in psychiatric concepts from first to second year. The faculty agreed to meet weekly until the curriculum changes are implemented beginning late June or early July at C. Flynn's residence.

M. Lowe was selected Curriculum Chairman, F. Frias as Curriculum Secretary, and C. Flynn as Faculty Secretary for the new school year.

The conference was adjourned.

Appendix A

Philosophy, Purpose and Objectives of the Program in Nursing

Nursing is a service to society. Its function is the skilled care of the sick and disabled, and the teaching of the principles of health. Its purpose is to assist people individually and collectively in achieving and maintaining the optimum level of well-being. Nursing incorporates technical and professional components based on principles from the biological, physical, and behavioral sciences. Nursing requires methods of practice which are flexible in application, and practitioners who are sensitive to changing social needs. The practice of nursing should be based on a code of ethics which will afford protection to the public and encourage the development of the practitioner.

The faculty of College of Marin believes that the associate degree program in nursing has as its main purpose the preparation of nurses to function on the health team as technical practitioners under the leadership of a physician and/or professional nurse. The educational program fuses the aims of general education and technical education, focusing on the personal, occupational, and social development of students as contributing members of the community.

Objectives are:

To develop the knowledge and the skills necessary to give direct patient care as a member of the nursing team.

To develop an understanding of the characteristics and problems of man in a changing cultural environment.

To know the social and civic responsibilities of citizens in a democratic society.

To understand the responsibilities and relationships of the technical nurse to the occupation of nursing.

INSTRUCTIONAL DEVELOPMENT PROJECT - A REQUEST TO SUPPORT THE WRITING AND ILLUSTRATING OF A SUPPLEMENTARY ENGLISH COMPOSITION BOOKLET

Mr. Paul R. Miller in Charge - Journalism Department

This is a proposal for the writing and illustrating by me and the publication by the College of a simple, basic, practical supplementary English composition booklet that is illustrated with cartoon strips and panels.

The book could be used not only in English Subject A and Communications 50 classes as a supplement to regular texts, but in high school composition classes as well.

Its use would be to improve student interest, knowledge and skill in expository writing through an informal, unstuffy, quick, uncluttered and vivid, humorous approach.

It would be a unique vehicle for studying composition and for teaching it.

1. Statement of Problem:

One of the reasons so many college students must take remedial English composition courses is that in high school the state textbooks they used in high school were cluttered with unnecessary grammatical rules, terms, and exercises, presented in a stuffy, monotonous and unimaginative style.

Although there are now some college workbooks that cut through a lot of the muck, none use the graphical possibilities of presenting the mechanics of English grammar. Neither do any publishers consider the intellectual possibilities of using comical situation and narrative style in trying to get the junk across to a student writer.

2. Proposal for helping to alleviate the problem:

If a student knew that he could buy an inexpensive cartoon book that would help him understand in a graphic and simple mechanical way -- without boring him any less than a TV commercial -- what, for example, a "comma splice" or a "dangling modifier" the hell really was, he would probably be flabbergasted.

Because I have been a reporter for about three years, a cartoonist for ten years and a writing instructor for five years, I feel I am qualified to produce such a booklet.

Attached are some samples of what direction the thing could take. It must be better than what the samples indicate, but the samples can give the committee much more of a concrete idea of what is being here proposed.

The booklet would not replace any text, but rather complement it. It could, of course, be useful to students in other courses besides composition.

INSTRUCTIONAL DEVELOPMENT PROJECT - A REQUEST TO SUPPORT A PILOT PROJECT IN GLASS DESIGN AS AN EXTENSION OF THE CREATIVE PROCESS

Messrs. Thano A. Johnson and Farhad Moezzi - Art Department

Purpose of the Project

To extend the scope of the present Art Department sculpture and ceramics classes in keeping with current developments in glass design in other institutions of higher learning. Creative glass design is a new exploration of creative media for the art student. This instructional development project can be merged with on-going classes which study form, structure, and three-dimensional design in ceramics and sculpture.

The instructors involved, along with assistance from their more advanced students, will fabricate the furnaces, manufacture the tools, and assemble most of the raw materials needed for this project.

College Financial Support of the Project

The institution will need to provide funds for the materials to manufacture the furnaces, lehrs, benches, and tools. These implements will be developed on campus because none can be purchased from commercial sources.

ACADEMIC CONFERENCE PROJECT - EXPLORING PROCEDURES TO USE IN AWARENESS TRAINING SESSIONS WITH COMMUNICATIONS STUDENTS

Mr. Jack deBenedictis in Charge - Communications Department

I would like to explore the possibility that Ann Halprin and Lawrence Hart become visiting members of the faculty of the College to teach students who would normally be assigned Communications classes.

For this purpose I would like to bring together some members of the Communications Department, the counseling staff, the Behavioral Sciences Department, and Ann Halprin and Lawrence Hart. To make the explorations more complete and more objective I also wish to invite a member each from the Drama Department, the English Department, and the Physical Education Department, as well

as two persons outside the College -- Jack Atkinson, a Communications teacher from Laney College and either Paul Ekman or Paul Baum, psychologists concerned with relationships between verbal and non-verbal communication. To insure vertical participation I would also like to invite a member of the Board and an administrator. A list of possible participants is attached.

A primary goal of all education is an increase in the student's awareness of himself and an awareness of his place in the world. The Communications Department has always held this as its central goal, working toward this awareness through the development of reading, writing, and speaking skills. Recently the Core program, undertaken with the Counseling staff, extended this awareness through individual and group psychological processes. As success accrued, the tendency has been to specialize techniques in the separate departments: the psychological aspects of the Core program are developing into separate classes in Group Processes in the Counseling Department and in the Behavioral Sciences Department; the Reading Improvement classes (Reading X and Reading Development) are being integrated into the Communications Department and are being extended to entering Freshmen with a reading level below the twelfth grade; the writing and speaking skills are now taught as Communications 50 to those reading at the twelfth grade level and above; Communications 51A, B has been developed as a full-year class for the further development of writing and speaking skills, but whose goals also include an awareness of the effects of mass communications and an understanding of their "grammars."

In exploring techniques to develop awareness in the Communications student, the Department -- in the person of Rosalie Brown -- carried out an experiment in consultation with Lawrence Hart, a poet and longtime teacher of the exceptionally bright child. Mrs. Brown and Mr. Hart wish to continue this experiment at greater length, utilizing an entire school year or more to assess the value of sensory reporting in developing expository skills in writing. One aspect of the proposed conference will be to discuss and evaluate Mr. Hart's final report on the Summer 1967 experiment. Another will be to determine the most effective way of passing on to other teachers Mr. Hart's methods and experience. For, in Mrs. Brown's words, "We were able, I think, to deal by this method with students who are not primarily verbal, but who, nevertheless, have high creative ability (although they score very low on the verbal tests). By tapping their creative ability first, we found they could learn by this method to write well. These students (scoring very low on entrance and reading tests) did as well as or better in the six-weeks summer course than the highly talented students in Lawrence's previous classes had done."

Last spring Ann Halprin, the creative director of the San Francisco Dancers' Workshop Company, indicated that she would like to teach at the College of Marin. Since then I have been acquainting myself with her and her work. She truly creates awareness in the individual as spectator and actor in the world around him. She knows how to involve people. The wide range of her artistic and intellectual activities is evident from the attached biography and curriculum vitae. She is obviously well-qualified as a teacher, lecturer, and performer. In addition, she is well-known professionally, both nationally and internationally. As a member of the faculty,

she would add stature to the College. As a teacher, she could be a very important influence in the growth of our students.

Her work now is dedicated to finding ways in which artists in many media can provide a creative theater environment in which genuine personal encounter with the spectator can take place. In her Company are combined the separate talents of dancers, actors, writers, musicians, composers, painters, sculptors, and psychologists. Simply and clearly stated: she is involved with "movement in relation to environment."

Particularly because her chosen field is interdisciplinary (for the College: communications, dance, psychology, drama) and involves some concepts better evaluated by members of the Counseling staff and the Behavioral Sciences Department, I have recommended a broad conference of faculty. For the same reason, Lawrence Hart's creative methods deserve interdisciplinary study.

Participants in the Academic Conference

Principals

Ann Halprin
Lawrence Hart

Guests

Paul Ekman, or
Paul Baum
Jack Atkinson, instructor, Laney College; student of Lawrence Hart;
former business executive; presently using Lawrence Hart's methods
at Laney

Communications Department

Maryjane Dunstan, Chairman
Rosalie Brown
Diane Howell

Judy Gartman, Evening Division
David Newby
Jack deBenedictis

Counseling Staff

Samuel LeCount
Pauline Toschi
Arlene Stark

Bill Peters
Dave Dunlap
Irwin Diamond

Behavioral Sciences Department

Carter Hanner
Don Holmlund

Dick Martin
William Scalapino

Drama

James Dunn

Dance-Physical Education

Lois Powell

English Department

Leonard Weiss

Board of Trustees

Elizabeth Deedy

Administration

Louis Herkenhoff

Evaluation

The nature of this conference is speculative and preliminary. Answers to the following questions would become hypotheses for testing.

1. Would the faculty of the College profit from association with Lawrence Hart and Ann Halprin? Specifically: how can the faculty "learn" from them? How can the faculty be involved in their work? What lasting effects will there be on the teaching at the College?
2. How could the students profit from instruction from Ann Halprin and Lawrence Hart? Specifically: what "courses" do they propose to teach? What methods of teaching will they utilize? Will these methods be effective? Do these two teachers have a good chance of being more effective than present faculty are?
3. Will their work at the College result in new methods of teaching of value to other institutions? Are their experimental creative methods of a type and calibre worthy of support by Federal, State, or private foundation grant? What might be the nature of the grant? What would be the significance of this grant to the local and national reputation of the College?
4. On the important personal level -- would we want to be personally involved with Ann Halprin and Lawrence Hart?

Time Schedule for Conference

This speculative, preliminary conference should take no more than about eight hours of one day. In order to minimize upsetting the work schedule of the teachers, counselors, professional artists, and practicing psychologists, I would recommend an afternoon/evening conference, divided half and half between the main participants, Lawrence Hart and Ann Halprin. The schedule should be:

Luncheon at the Retreat

Introduction of principals, guests, and faculty

I. Lawrence Hart

- A. Final report on Summer 1967 project.
- B. Discussion of the report
- C. Report and comments of Jack Atkinson on Laney College program
- D. Discussion
- E. Rosalie Brown Summary and

Dinner

II. Ann Halprin

- A. Presentation of paper by Ann Halprin
- B. Discussion
- C. Film or demonstration
- D. Discussion
- E. Comments and discussion of guest psychologist (paul Ekman or Paul Baum

Summing up

Materials and Records of the Conference

- 1. I propose that a videotape be made of some parts of the conference. For this purpose a cameraman and videotape equipment could be assigned for the conference. Perhaps this would not need to be financed by the Committee.
- 2. The entire conference should also be tape recorded.
- 3. Printed informational material will be distributed to all participants beforehand. Each participant will be asked to prepare to read and discuss his responses to the material at the Conference. These responses will become a part of the record of the Conference. The materials to be distributed are:

On Lawrence Hart:

- a. Curriculum vitae
- b. Final Report of the Summer 1967 Experimental Course

On Ann Halprin:

- a. Biography and curriculum vitae
- b. "Yvonne Rainer interviews Ann Halprin," Tulane Drama Review
- c. "Experiments in Environment," Progressive Architecture, July 1967
- d. Various public information notes
- e. Rogers, Carl R., "The Interpersonal Relationship in the Facilitation of Learning," a lecture given at Harvard University, April 12, 1966

INSTRUCTIONAL DEVELOPMENT PROJECT - EXPLORING THE EFFECTIVENESS OF 'MARATHON'
ENCOUNTER TECHNIQUES WITH COUNSELING GROUPS

Mrs. Arlene Stark in Charge - Counseling Department

Two small groups have been involved in a sensitivity training program designed for students who will be working in the helping professions. These two hour per week sessions have involved varied experiences in verbal and non-verbal communication with the goal of increasing self-awareness and awareness of others. As a culminating activity, I wish to lead a marathon group encounter in a non-school setting. The students will meet continuously from 9:00 a.m. through 9:00 p.m. The activities will include verbal and non-verbal encounter. Such prolonged experience will, hopefully, break down barriers to communication. It will also give the students an opportunity to experience their own increased abilities in the area of self-awareness and awareness of others.

This is an experimental approach in group processes which will provide us with much needed information on techniques for use with groups of non-achievers and others.

INSTRUCTIONAL RESEARCH PROJECT - THE DEVELOPMENT OF AN INTERDISCIPLINARY
COURSE ENTITLED "INVENTING THE FUTURE"

Miss Maryjane Dunstan, Mr. Larry K. Baker, Mr. Carter C. Hanner, Mr. James C. Dunn, Mr. Millard R. Morger, Mr. Donald W. Martin in Charge - Departments of Communication, Business and Economics, Behavioral Science, Social Science, Drama, and Physics

A group of faculty members drawn from seven academic areas has proposed, and had accepted, a new three unit interdisciplinary course titled "Inventing the Future" (Com. 40, Drama 2D OR Behavioral Science 2). The course will consist of two lecture and two seminar hours weekly and be taught by seven of our staff plus outside speakers. This will be a problem solving course focused around the question "What are the technological and social forces which are shaping the future?" The students will create the problems and attempt to present solutions through discussion, projects and papers.

In approving the course the Instructional Council limited the faculty to a maximum of eight units of instructor load. These eight units would be distributed to four instructors rather than the seven that were originally proposed. It is the feeling of the participating instructors that the course can be greatly improved with the breadth afforded by the wider participation. To this end we are asking the Instructional Research and Development Committee for funds to pay these remaining three instructors on an hourly overload basis. This can be calculated as six hours per week at the current rate of approximately \$9.50 per hour (three instructors @ 2 hours per week). In addition to the funds necessary to cover the overload payment, \$600 will be needed to cover the costs of honorariums and film rentals.

With the development of the course it has become apparent that one of the essential contributors to success will be the role of a "Course Director". Because of the many instructors involved, the interrelationship and coordination of guest speakers, films, panel discussions and grading of students, one person must assume responsibility and hence should have released time to do so. It is the determination of the participating instructors that a minimum of two units per semester should be given to the faculty member assuming this role.

Course Description

Communications 40; Drama 2D; Behavioral Science 2: Inventing the Future

No prerequisites: two lecture and two seminar hours per week. This course will bring into focus for the student the technological and social forces which are shaping the future.

Objectives of the Course:

To bring to the student an interdisciplinary approach to the problems of the future. To acquaint the student with the technological implications of the cybernetic revolution and to discuss the effects of this revolution on the future of American society and world society.

Organization of the Course:

1. Texts: (Tentative selection)
 - a. The Dynamics of Change, Donald Fabun, editor
 - b. Technology and Social Change, Emmanuel Nesthene, editor
2. Reference Material: The student will be provided with an extensive bibliography on the subject of the future from the various disciplines.
3. Types of Presentation: A two hour lecture-discussion session with all the interdisciplinary participants will be held each week. Guest lecturers, pertinent films, panel discussions will be presented during this two hour session. Two one hour seminar sessions consisting of one instructor and a group of 15-20 students will be held each week.

Group or individual projects will be discussed in these small seminar groups.

4. Grades, assignments and examinations: The course will be offered on a credit/no credit basis. Reading assignments, short papers and a term project (either group or individual) will be required. There will probably be no formal examinations.

RESEARCH AND DEVELOPMENT TIME REQUEST TO DEVELOP A PROGRAM OF FACULTY INSTRUCTION IN HIGH-SPEED COMPUTATION TECHNIQUES

Messrs. Robert L. Petersen and Donald W. Martin in Charge - Physics Department

The instructors involved in this project surveyed the faculty members in the natural sciences, mathematics, and engineering to determine their academic requirements for a high-speed computer facility in the new Science Center. The response to their initial inquiry was sufficient to request R & D time from the Committee on Instructional Research and Development to develop and offer an appropriate course in computer operations for all interested faculty members.

The R & D time would be devoted to the compilation of a computer use file for the interested faculty. This file would contain operating instructions, formats for computer applications, and principles that can be utilized in programming data for natural, behavioral, and social science instruction.

ACADEMIC CONFERENCE PROJECT - DEVELOPMENT OF A NEW ORGANIZATIONAL FORMAT FOR THE COLLEGE OF MARIN (A Project of the Academic Senate)

Mr. Samuel Schwartz in Charge - Chairman of the Academic Senate

Proposal Theme

The Academic Senate is making a request for funds to finance a one day Academic Conference.

The Senate members will be using this time to discuss the following issues:

1. The development of a new organizational format for campus and district organization.
2. An examination of the fiscal condition of the College District.
3. An examination of the rationale for the establishment of a North Campus, including other than Kentfield Campus instructional and administrative entities, for the College District.
4. A discussion of the relationship of the legitimate legal authority of the Board of Trustees to the genuine professional authority of the faculty.

Faculty Participants at the Conference

Mr. Baker
Mrs. Blair
Mr. Braun
Mr. Burroni
Mr. deBenedictis
Mr. Donlon
Miss Dunstan
Mr. Essig
Mr. Holmlund

Mr. Howe
Mr. Martin
Mr. Molina
Mr. Morel
Mr. Place
Mr. Raynes
Mr. Reese
Mr. Schwartz
Mr. Trelaun

CONTINUATION OF THE EXPERIMENT IN SENSORY REPORTING TECHNIQUES IN COMMUNICATIONS INSTRUCTION WITH THE INCLUSION OF A NEW PHASE OF THE PROCESS: IMAGERY-MAKING TECHNIQUES

Mr. Jack deBenedictis and Mrs. Rosalie M. Brown in Charge - Communications Department

1. Value and Objective of the Project

Last year an experimental class using sensory reporting techniques in teaching writing to remedial students was successfully concluded during the summer session with Rosalie Brown as teacher and Lawrence Hart as consultant. Funds are asked to continue the experiment in order to obtain further testing of a new method. The 1967 summer session class was given three weeks of sensory reporting training, which was then followed by a three weeks' bridge to expository writing. It is proposed that the teachers take this year's class through an entire six weeks of training in aesthetic techniques, adding image-making skills to the initial training in sensory reporting. It is expected this training will give the student a sense of balance and an appropriateness in the use of language which parallels the order of logic.

2. Professional and Supportive Assistance Needed for the Project

This summer Mr. deBenedictis will be in charge of the class, to direct the shape it takes in consultation with the consultant Lawrence Hart, to determine that the students are getting training which will prepare them for a succeeding class -- (Com. 51, Subject A, or whatever) -- and evaluate the students at the end of the course.

3. Financial Considerations for the Project

Consultant funds (Mr. Lawrence Hart)
Secretarial assistance

4. Methods for Evaluating and Reporting Results

Individual reports will be made on each student, and final evaluations by Mr. Hart and Mr. deBenedictis. At a later date, Rosalie Brown intends

to write up and submit a plan for a 2 or 3 unit course (involving sensory reporting and creative writing techniques) or a regular year's course in the Communications Department. The work done in the two summer experiments would be of the greatest value in helping to sift values and decide what kind of basic aesthetic writing course would be most useful to our students.

Faculty Projects Submitted to the IR & D Committee: Academic Year 1968-1969

REQUEST FOR SUPPORT OF A PROJECT ENTITLED EXAMINATION AND ASSESSMENT OF THE
BLACK STUDIES CURRICULUM AT THE COLLEGE OF MARIN

Mrs. Joan W. Jencks in Charge - Department of Social Science

1. The Problem:

Five new classes were added to the College of Marin curriculum for the Fall Semester 1968. These plus a class in African history (not staffed for the initial semester) were formulated during the previous spring semester with students, faculty, administration and board of trustees of the College working in concert. The fact that five of the six are being offered for credit this fall is a tribute to all of the participating groups.

Some of the logical questions which follow the establishment of any new group of courses in a fresh field are: how are these new courses to be evaluated by the college community? The student body which helped formulate the principles has changed. Do the current courses meet the needs of this or a future student group? Do these courses contribute to the spectrum of five different departments or is the material in any given "Black Studies" class much more than a concentrated "dose" of what students would hear, for instance, in History 17A, B? Should the College begin to develop the Center for Black Studies which was a part of the discussions last spring? Should there be any attempt to coordinate the various classes in the program toward the concept of "team teaching?" Since some of the instructors are part-time or new to the College should one member act as a coordinator for the program during the initial semester? Ordering of films or tapes, or scheduling guest speakers might be arranged to fit the needs of several class disciplines.

A planned series of workshops during the spring semester would enable students, teaching faculty in the program, other interested faculty, administration, board of trustees, and Marin citizens to discuss the initial semester and formulate the future classes and perhaps, recast the entire program to fit the needs of the whole college community in 1969. If the program is to deal with current problems we must be sure that our courses are "current."

A further evaluation process could contain the element of seeing what others are doing. Several CoM faculty members visited Merritt College last spring. Other colleges and the University are offering classes in a Black Studies program. It would be valuable to visit the other institutions of higher learning in the Bay Area in the process of evaluating our program.

2. The Proposal:

Answers to the above questions and solutions to the interrelated problems can be best sought by an organized, concerted effort requiring the services of a member of the professional staff who can 1) gather and organize information; 2) coordinate with the various elements of the College; and 3) make proposals as to future action.

3. Anticipated Professional Time to be Devoted to the Project:

I expect to devote three-fifths of my time to the project which should cover approximately three and one-half months of time.

4. The Physical Needs and Financial Assistance:

The work can be accomplished in my office. Typing assistance and clerical help will be supplied out of the department's work study fund.

RESEARCH AND DEVELOPMENT TIME REQUEST - AN ASSESSMENT OF SELECT COMPLEX INSTRUMENTS TO DETERMINE THEIR APPROPRIATENESS TO THE LABORATORY EXPERIENCES OF STUDENTS STUDYING IN CHEMICAL TECHNOLOGY

Dr. Onnig H. Bezirjian in Charge - Chemistry Department

1. This department is moving rapidly into higher education academic and technical programs in chemistry which require that the student become familiar with the use of quite complex instruments. The new courses of this department which deal with instrumental analysis and chemical instrumentation for Marine Technology will be devoted to the theoretical issues and practical applications of such apparatus as ultraviolet, infrared and visible spectrophotometers, polarographs, chromatographs, potentiometers, titrimeters, polarimeters, lasers and scintillation systems. This equipment is delicate and expensive and it is the opinion of the faculty members of this department that one of our number spend an allocated portion of Research and Development time to visit other institutions of higher learning that are involved in similar programs to determine what equipment of this nature has been purchased and how effectively it can be used in the teaching of students pursuing their studies in the natural sciences. We do not want to make any purchases of equipment that is either technically inferior or cannot be used with all effectiveness in the laboratory experiences of our students. The analysis of this equipment in terms of its appropriateness to the laboratory experiences of college students is our central reason for approaching the Committee for this R & D time.

2. We have determined that three hours of R & D time are necessary to complete our project during the Spring Semester, 1969. We can accommodate this amount of three teaching units of released time for O. H. Bezirjian by arranging the teaching load within the department. We will not need to hire a substitute faculty member to cover for the person in our department who will pursue this project.
3. This project must be conducted during the academic year. We must watch students in action around similar equipment already purchased by other institutions of higher learning.
4. Financing for supportive services will not be needed.
5. Special physical arrangements will not be needed.
6. No instructors will be required to meet scheduled classes in the absence of the faculty member carrying out the project.
7. All faculty members of this department will participate in this project.
8. A written report of the departmental conclusions regarding the technical superiority of the equipment to be purchased and the appropriateness of the instruments to the laboratory experiences of college students will be made available to the Committee at the conclusion of the Spring Semester, 1969. If the Committee believes it is necessary, we will also be prepared to make a verbal report on our involvement in this project.

A PROPOSAL FOR AN INTERDISCIPLINARY STUDIES PROGRAM

Miss Diane L. Howell in Charge - Communications Department

As particular areas of knowledge grew increasingly complex and pre-IBM man was seemingly confronted with information-overload, the central question was: How do we keep up with the information, despite more and more intricate specialization? Today's question is rather: How do we keep on top of the information; that is, how generate different questions and innovative patterns to structure (or program) the computer (i.e., information) most effectively for our purposes?

It is foolish to assume any longer that specialization denies the inter-relatedness of various disciplines. The nuclear physicist cannot pretend his research has no effect on aspects of life other than those confined to his laboratory; the Wall Street broker would be blind not to assume his trading and selling relate to more than mere economic concerns; and who is to negate the possible consequences of a satellite telecast of an Eastern performing artist on the Western viewing audience?

Similarly, it is presumptuous to think knowledge is confined to formal schooling or textbooks alone. In the global village scientific technology has brought into each of our living rooms, the world becomes our living "text."

The current general studies curriculum offers the student individual courses within separate disciplines, the underlying assumption presumably that one must have a general grasp of those areas of knowledge in order to be an "educated" man. I put the word educated in quotes because it seems to me that is a disastrously outdated concept. Today's environment of continual change demands, in Carl Rogers' words, ". . . man who has learned how to learn; the man who has learned how to adapt and change; the man who has realized that no knowledge is secure, that only the process of seeking knowledge gives a basis for security. Changingness, a reliance on process rather than upon static knowledge, is the only thing that makes any sense as a goal for education in the modern world."

Rather than a general grasp of segregated islands of information, neatly compartmentalized and categorized in his mind, we speak of an educated man as one who perceives relationships between various areas of knowledge, one who sees the overlapping nature of consequences and thus values between disciplines. For example, who can deny economics has great consequences upon politics and hence, history, particularly in America?

This proposal suggests an alternate general studies program. It proposes to make available the now separated disciplines within an integral study plan. That is, the student signs up to take required introductory courses of complementary content in a block study program in order that he may begin to perceive relationships and interrelated consequences between areas of knowledge. His task, as it were, is thus removed from learning isolated chunks of information to making integral and comprehensive gestalts, or grasping patterns of meaning. This approach also makes possible the beginning of an in depth study rather than the usual "overview skimming" imposed on most introductory courses by virtue of their broad scope.

Such a program seeks to encourage the student to search out and discover relationships for himself. That he learn to make new metaphors, to discern values and make critical judgments as well as draw conclusions from his own creative reflection is to acknowledge the student as participating learner; his presence is essential for an integrative understanding. Rick Beban, SAF member on this campus, expresses his understanding of a student thusly:

"We are here to learn how to think, to relate to people, and to effectively use the knowledge gained to enhance the environment in which we live. If we are not allowed, in a classroom situation, to question the ideas and values of the society, and what we are being taught then there is no purpose for being here. These buildings might just as well be used for real, rather than figurative sheep pens..

The student is no mere information gatherer or cataloguer of disparate and isolated facts. He is a human being simultaneously involved in making critical judgments and affirming particular values in terms of human behavior and life style - individual as well as national.

A learning situation such as proposed here affords multiple forms of instruction. Team-teaching, shared or dialogue lectures/presentation, mutually

designed projects are but a few of the possibilities. It would be ideal to hold such a class in a multipurpose structure, such as the proposed dome structure in our present building program. A flexible and adaptable environment would greatly enhance the potentialities for learning. However, this proposal does not require additional buildings or funds. The primary ingredient is rather a cohesive staff, able to work in various modes and at various levels with one another. As this is an alternative route for general studies, I think it imperative to insist only those instructors willing and capable of moving with this kind of teaching approach be involved. The burden is largely with instructional style.

I propose a weekend retreat in order to gather interested faculty (fifteen persons from as many disciplines, plus one or more representatives from the administration) and begin making concrete plans to implement this proposal.

INSTRUCTIONAL RESEARCH AND DEVELOPMENT AT THE COLLEGE OF MARIN

ADDENDUM

The page number of each IR & D project entered in this document.

	Page
SINGLE ELEMENT MAGNIFICATION IN LIFE SCIENCE INSTRUCTION Mr. Leonard D. Baver in Charge -- Biology Department	12
SINGLE-TOPIC FILM SERIES WITH VERBAL COMMENTARY FOR INSTRUCTION IN THE EARTH SCIENCES Mr. Stephen C. Bruff in Charge -- Geology Department	12
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